=> d his

(FILE 'HOME' ENTERED AT 12:55:45 ON 30 OCT 2004)

FILE 'REGISTRY' ENTERED AT 12:55:59 ON 30 OCT 2004

L1 STRUCTURE UPLOADED

L2 STRUCTURE UPLOADED

L3 15 S L1 OR L2

FILE 'CAPLUS' ENTERED AT 12:58:07 ON 30 OCT 2004

FILE 'REGISTRY' ENTERED AT 12:59:46 ON 30 OCT 2004 L4 212 S L3 FULL

FILE 'CAPLUS' ENTERFD AT 13:00:11 ON 30 OCT 2004 L5 40 S [4]

=> d que 15 stat

L1 STR

Structure attributes must be viewed using STN Express query preparation.  $\ensuremath{\mathsf{L2}}$ 

Structure attributes must be viewed using STN Express query preparation.

L4 212 SEA FILE=REGISTRY SSS FUL L1 OR L2

L5 40 SEA FILE=CAPLUS ABB=ON PLU=ON L4

=> d 1-40 bib abs hitstr

Page 2

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ANSWER 1 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 2004:413024 CAPLUS
Al!
      140:408229
      Mixtures of reactive azo dyes, their production and their use in dyeing of
     mixtures of reactive azo dyes, their production and their use material containing hydroxy- and/or carboxamido groups. Fbenezer, Warcen James; Russ, Werner Dystar Text.HTarben G.m.b.H. & Co. Deutschland K.-G., Germany RCT Int. April. 26 pp. CODEN: PIXXD2
50
      English
FAIL CHT
      PATENT NO.
                                                          APPLICATION NO.
                                 KIND DATE
          WO 2004041941
                                          20021103
PRAT GB 2002-26151
                                  Α
      MARPAT 140:408229
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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA GFFLINE PRINT \*

Disclosed are reactive azo dye mixts, comprising one or more of I (Arl= sulfoaryl: M = H, alkali metal: X1 = labile atom or group) and one or more of II (Ar2 sulfoaryl: M = H, alkali metal: L = mono- or divalent radical: X2 = labile atom or group: a = 1 or 2). The mixts, provide strong and communic shades on tibrous materials. In an example, 2-aminoethylopperatine and ethylenediamine were condensed with a distribute statement of the order of the order of the order. dichlorotriazinyl dye to give a red 1:1 mixture of dyes of type I and type

RL: IMF (Industrial manufacture): TEM (Technical or engineered material use): PREP (Preparation): USES (Uses)
(red dye: production of reactive azo dye mixts, containing)
220211-72-3 CAPLUS

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AMSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM
      2001:36726 CAPLUS
140:95572
DH
     Reactive azo dyes, their production and their use
Fbenezer, Warren James; Russ, Werner
Dystan Textiliarben G.m.b.H. & Co. Deutschland K.-G., Germany
50
      Eur. Pat. Appl.. 48 pp.
CODEN: EPXXDW
DT
      Patent.
      English
      PATENT NO.
                                                     APPLICATION NO.
                                                                                 DATE
                              KIND DATE
         ZA 2003005261
      BR 2003002363
JP 2004043809
CN 1477159
                                       20040225
                                                     CN 2003-146641
                                                                                  20030710
PRAT GB 2002-15982
OS MARPAT 140:955/2
                                       20020710
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$$\underbrace{\prod_{i \in \mathbb{N}}^{|\mathcal{X}|} \prod_{i \in \mathbb{N}}^{|\mathcal{X}|} \prod_{i \in \mathbb{N}^{2}} \prod_{i \in \mathbb$$

The invention discloses reactive azo dyes (I: Al. A2 = archaetic sulfo-containing azo quiety: R1, R2, R3, R4, R5 - H, optionally substituted alkyl: X1, X2 Tiber-reactive atom or group:  $\langle | y | = 0.1 \rangle$  thereby at least one of  $\langle x | and y \rangle$  is 1: a, b = 2-5 and when each of  $\langle x | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  in the first of  $\langle x | z | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  in the first of  $\langle x | and y \rangle$  is 1. a b >  $\langle x | z | and y \rangle$  in the first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1. The first of  $\langle x | and y \rangle$  is 1.

was treated in succession with 2 different monoazo dyes each containing a dichlorotriaring group to give a disazo dis(chlorotriazine) reactive dye (/max 491 nm). 644987-54-2P 644987-55-3P 644987-56-4P 644987-55-59 F64987-65-59-7P 644987-60-0P 644987-61-1P 644987-62-2P 644987-60-66-6P 644987-67-7P 644987-68-8P

AUSWER 1 OF 40 CAPLUS COPYRIGHT 2001 ACS on STN (Continued) 1.5-Naphthalenedisulfonic acid. 2-[[8 [[4-chloro-6-[4-[2-[[4-chloro-6-[17-[Cl.5-disulfo-2-naphthaleny]]azo]-8-hydroxy-3.6-disulfo-1 naphthaleny]]amino[-1.5-5-triari-y-y-] lamino[-1-hydroxy-3.6-disulfo-2-naphthaleny]azo]- (9CI) (CA THIREX HAME)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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AISHCR 2 0F 40 CAPLUS COPYRIGIT 2004 ACS on STII 644987-69-9P 644987-70-2P 644987-71-3P 644987-72-4P 644987-73-5P 644987-73-5P 644987-74-6P 644987-75-7P 644987-78-6P 644987-79-0P 644987-79-0P 644987-79-0P 644987-79-0P 644987-89-89 644987-83-7P 644987-89-89 644987-89-9 644987-89-39-644987-89-39-644987-89-39-644987-89-5P 644987-99-5P 6449887-99-5P 644987-99-5P 64498-99-5P 
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        644987-93-96 644987-94-10 644987-95-10 644987-96-29 644987-97-39 644987-98-49 644987-99-59 644988-03-10-10 644988-01-29 644988-03-10-20 644988-03-10-20 644988-03-10-20 644988-03-10-20 644988-03-10-20 644988-11-25 644988-11-39 644988-11-49 644988-12-59 644988-18-19 644988-18-19 644988-18-19 644988-13-59 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 644988-13-50 
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644988-52-3P 644988-50-1P 644988-51-2P
644988-55-6P 644988-56-7P 644988-57-8P
644988-55-6P 644988-56-7P 644988-67-3P
644988-61-4P 645405-61-4P 645405-62-5P
                        645405-63-6P
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[(1.5-disulfo-2-naphthalenyl)azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]-1.3.5-trnazin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5-triazin-2-yl]cethylamino]-1-hydroxy-3 sulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX

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15 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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644987-55-3 CAPLUS

u+rov-to-3 CAPLUS

1.5-Maphthalenedisulfontc acid. 2-[[6-[4-chloro-6-[[2-[4-[4-chloro-6-[[6-[(1.5-disulfo-2-naphthaleny])azo]-5-hydroxy-7-sulfo-2-naphthaleny]]amino]
1.3.5 triazin-2-yl]-1-piperazinyl]ethyl]amino]-1.3.5-triazin-2yl]methylamino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (9CI) (CA [NDEX NAME)

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644987-56-4 CAPILUS

CHAPUTS -30-4 CAPLUS

LS-Maphthalemedisul fonic acid. 2-tt6-[[4-chloro-6-[4-[2-[[4-chloro-6-[[6-[(1.5-disulfo-2-naphthalenyl)azo]-5-hydroxy-1.7-disulfo-2-naphthalenyl]JatinoJ-1.3.5-triazin-2-yl]aminoJethyl]-1-piperazinyl]-1.3.5-triazin-2-yl]aminoJ-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX MAME)

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

644987-58-6 CAPLUS

1.5-Haphthaienedisulfonc acid. 2-[[6-[[4-[4-[2-[[4-[[3-[[8-amino-7-[(2.5-disulfophenyl]azo]-1-hydroxy-3.6-disulfop-2-naphthalenyl]azo]-4-sulfophenyl Jamino]-6-chloro-1.3.5-triazin-2-yl]amino]etiyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-yl]awino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-(9CI) (CA INDEX NANE)

PAGE 1-A

PAGE 1-B

64-1987-59-7 CAPLUS

04+98-7-98-7 CAPLUS

1.5-Mephthalenedisulfonic acid. 2-[[8-amino-7-[[5-[[4-chloro-6-[[2-[4-[4-chloro-6-[[3-[4-[4-chloro-6-[[6-[(1.5-disulfo-2-naphthaleny])azo]-5-hydroxy-7-sulfo-2-naphthaleny]]acih]lamino]-1.3.5 triazin-2-yl]amino]-2-sulfopheny]]azo]-1-hydroxy-3.6-disulfo-2-naphthaleny]]azo]- (9CI) (CA INDEX MAME)

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STR (Continued)

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1.5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

644987-60-0 CAPLUS

o4987-00-0 (APLD)

1.5-Raphthalenedisulfonic acid. 2-[[6-[14-[4-[2-[[4-[]3-[[8-amino-7-[(2.5-disulfophenyl)azo]-1-hydroxy-3.6-disulfo-2-naphthalenyl]azo]-4-sulfophenyl]amino[-6-chloro-1.3.5-triazin-2-yl]amino[cthyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-yl]amino[-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (9C1) (CA IRDEX NAME)

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LS ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

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644987 61-1 CAPLUS

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644987-62-2 CAPLUS

644987-62-2 CAPLDS

15-Maphthal enectfsul front actid. 2-[[1-amino-7-[[5-[[4-chloro-6 [[2-[4-[4-chloro-6-[[6-[(1.5-disul fo-2-anphthalleny|) 2a2o]-5-hydroxy-7-sul fo-2-anphthalleny|) jmethy | amino]-1, 3, 5-triazin-2-y1]-1-ipiperariny| [2thyl ] amino]-1, 3, 5-triazin-2-y1]-amino]-2-sul fophrany| [2a2o]-8-hydroxy-3, 6-disul fo-2-anphthalleny| [2a2o]-8-h

ANSWER 2 OF 40 CAPILIS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

err997-04-4 CAPTUS
1.5 Haphthalenedisulfonic acid. 2-ff8-omino-7-ff4-ff4-chloro-6-ff2-f4-fe-chloro-6-ff6-ff1.5-disulfo-2-naphthalenyllazo]-5-hydroxy-7-sulfo-2-naphthalenyllamino]-1.3.5-triazin-2-yll-1-piperazinyl]ethyllamino]-1.3.5-triazin-2-yll-1-hydroxy-3.6-disulfo-2-naphthalenyllazo]- (9C1) (CA INDEX HAME)

PAGE 1 A

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844987-65-5 CAPLUS

c++yor-ob-5 (APLU)

1.5 Maphthalendisulfonic acid, 2-[[8-[[1-[2-[[1-[[5-(acetylamino)-4-[(4.8-disulfo-2-naphthalenyl)azo]-2-mathosyphonyl]amino]-6-chloro-1.3.5-triazin-2-yl]aminojethyi] 1-piperazinyl]-6-chloro-1.3.5-triazin-2-yl]aminoj-1-hydroxy-3.6-disulfo-2-naphthalenyl]azo] (901) (CA INDEX NAME)

AMSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS ON STR magnifications (9C1) (CA INDEX NAME) (Continued)

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PAGE 1 B

chloro-6-[[6-[(1.5-disulfo-2 naphthalenyl)azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]-1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]amino]-1.3.5-triazin-2-yl]amino] 2 sultophenyl]azo]-8-hydroxy-3.6-disulfo-2naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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LS ANSWER 2 OF 40 CAPILIS COPYRIGHT 2004 ACS on STN (Continued)

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PAGE 1-B

 $\label{eq:continuous} 644987-66-6 \quad \text{CAPLUS} \\ 1.5-\text{Maphthalenedisultonic acid.} \quad 3-\text{L[2-(acetylamino)-4-[[4-chloro-6-t]2-[4-chloro-6-t]$ 

PAGE 1-A

- L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STIL (Continued) PAGE 1-B
- 614987-67-7 CAPLUS
- $\label{eq:continuous} 6 + 1987 + 67 + 7 \quad \text{CAPILS} \\ 1.5 + 19phthale needs of force acid. 3 + F[2 (acetylamino) + 4 F[4 chloro-6 f4 [2 F[4 chloro-6 f[8 hydroxy 3.6 disulto 7 [41 sulfo-2 naphthalonyl ] azoj 1 naphthalonyl ] amino] 1.3.5 triazin-2 yl ] amino] 5 methoxyphonyl ] azoj (961) (CA | IMDEX NAME) | CA | IMDEX NAME) | CA | IMDEX NAME) | CA | IMDEX NAME |$

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644987-68-8 CAPLUS

ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

644987-70-2 CAPLUS

PAGE 1-A

ANSHER 2 OF 40 CAPLIS COPYRIGHT 2004 ACS on SHI (Continued) 1.3.6-Haphthalenetrisulfonic acid. 7-[[2-(acetylaminn)-4-[[4-chloro-6-[[2-[4-(4-chloro-6-[[8-hydroxy 3.6-disulfo-7-[(1-sulfo-2-naphthalenyl)lamino].1.3-5-triazin-2-yl]-1-piperazinyllethyl]amino]-1-3.5-triazin-2-yl]-1-piperazinyllethyl]amino]-5-methoxyphonyl]azo] (9CI) (CA HODEX NAME)

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644987-69-9 CAPLUS

L5 ANSMER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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644987-71-3 CAPLUS
1.3.6 Naphthalenetrisul fonic acid. 7-[[2-(acetylamino)-4-[[4-chloro-6-[[2-[1-[4-chloro-6-[2-[1-[4-chloro-4-[2-[4-chloro-4-[4-chlor

PAGE 1-A

PAGE 1-B

644987-72-4 CAPLUS

64188/7/2-4 CAPLUS
1.3.6-Haphthalenetrisulfonic acid. 7-[[2-(acetylamnno)-4-[[4-chloro-6-[4-[2-[[4-chloro-6-[[7-[(1.5-disulfo-2-naghthalenyl]azo]-8-hydroxy-3.6-disulfo-1-naphthalenyl]amino]-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5-triazin-2-yl]amino]-5-methoxyphenyl]azo]- (9CI) (CA

ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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644987-73-5 CAPLUS

CIS

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A IIH-CH2-CH2 ,S03H H03S-

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PAGE 1-B

644987-76-8 CAPLUS 1.3,6-Naphthalenetrisulfonic acid. /-[[2-(acetylamino)-4-[[4-chloro-6-[4-c

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

-503H

644987-74-6 CAPLUS 1.5-Haphthalenedisultonic acid. 3-[[2-(acetylamino)-4-[[4-chloro-6-[4-[2-CN 1.3-naphunotenensia (IGN) action 3-(Let-vision action) action (FLE-vision a

PAGE 1-A

AMSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN (Continued) [2 [[4-chloro-6-[[8-hydroxy-3,6-disu]Fo-7-[[2-su]fophory]]2a0j-1-naphthalenyl]amino]-1.13.5-triazin-2-yl]amino]-5-methoxyphoryl]azoj- (9cl) (CA HMDEX HANE)

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RN CN

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LS ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STH

644987-78-0 CAPLUS
1.5-Naphthalenedisulfonic acid. 3-F[2-(acetylamino)-4-[f4-chloro-6-[4-[2-[4-chloro-6-[7.4] (C.5-disulfophenyl)azo]-8-hydroxy-3.6-disulfo-1-maphthalenyl]amino]-1.3.5-triazin-2-yl]amino]-5 methoxyphonyl]azo]- (9Cl) (CA NOLX NAHE)

PAGE 1-A

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E5 RN CN

AMSWLR 2 OF 40 CAPLUS COPYRIGHT 2001 ACS on STN (Continued) 644987-80-4 CAPLUS 1.3.6 Maphthalenetrisulfonic acid. 7-[[2-(acetylamino)-4-[[4-chloro-6-[4-[2-[(3-chloro-6-[(7-((2.5-disulfophenyl))aro]-8-hydroxy-3.6 disulfo-1-naphthalonvi]amino] 1.3.5-triazin-2-yl Jamino]ethyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-5-methoxyphenyl [azo]- (9CI) (CA TNOFX MAME)

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644987-81-5 CAPLUS
1.5-Haphthalenedisulfonic acid. 2-L[/-L[5-{[4-[2-[4-[4-[5-(acctylemino)-4-[(4.8-disulfo-2-naphthaleny)]azo]-2-methoxyphenyl Jamino]-6-chloro-1.3.5-triazin-2-y]]-1-piperaryil]cithy]]amino]-6-chloro-1.3.5-triazin-2-y]]-maphthalenyl]azo]-1-amino-8-hydroxy-3.6-disulfo 2-naphthalenyl]azo]- (9C1) (CA THOEX NAME)

L5 AMSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued) PAGE 1-B

644987-79-1 CAPLUS RN

output-ry-1 LAPLUS 1.3.6-Maphthalenetrisulfonic acid. 7-[[2-(acetylamino)-4-[[4-chloro-6-[[2-[4-4-chloro-6-[[7-(2.5-disulfophenyl)azol-8-hydroxy-3.6 disulfo-1-naphthalenyl]amino]-1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]amino]-1.3.5-triazin-2-yl]amino]-5-methoxyphenyl]azo]- (9Cl) (CA INDEX NAME)

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(Continued) PAGE 1-A

644987-82-6 CAPLUS

644987-87-6 CAPLUS

1.5-Maphthalenedisulfonic acid. 2-[[7-[[5-[[4-[[7-[4-[4-[[5-(acetylamino)-4-[(4.8-disulfo-2-naphthalcny])azo] 2 methoxyphenyiljamino]-6-chloro-1.3.5-triazin-2-yl]-1-piperazinyl jethyl jasino]-6-chloro-1.3.5-triazin-2-yl]-mino[1-2-sulfophenyl]azo]-8-anino-1-hydroxy 3.6-disulfo 2 naphthalenyl jazo]-(9C1) (CA IROEX NAME)

PAGE 1-A

ANSHER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) [2-[[4-[[3-t][8-amino-7-[(1,5-disulfo-2-naphthaleny])azo]-1-hydroxy-3.6-dhsulfo-2-naphthaleny]]azo]-4-sulfophory]]amino]-6-chloro-1.3.5-triazin-2-yl]amino[berty]]-1-piperaziny]-6-chloro-1.3.5-triazin-2-yl]amino[phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B \$03H

644987-84-8 CAPLUS

b449M7-84-8 CAPLUS
1.5-Helphthaleweds by fronto acid. 3-[[2-(acetylamino)-4-[[4-[4-[2-[[4-[2-[4-[2-[[8-amino-7-[(2.5-disul fuphenyl)acol-1-hydroxy-3.6-disulfo-2-naphthalewyl]acol-4-sulfophenyl]amino[-6-chloro-1.3.5-triazin-2-yl]amino[b4hyl]-1-piperazinyl]-6-chloro-1.3.5 triazin-2-yl]amino[-5-methoxyphenyl]acol- (901) (CA HOLEX MAME)

PAGE 1-A

15 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

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PAGE 1-B

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

644987-85-9 CAPLUS

1.3.6-Haphthalenetrisulfonic acid. 7 [[2-[(aminocarbonyl)amino]-4-[[4-[4-[2-[[4-[[3-[[6-amino-7-[(2.5-disulfopnenyl)amo]-1-hydroxy-3.6-disulfo-2-naphthalenyl]azo]-4-sulfophenyl]amino] 6 chloro-1.3.5-triazin-2-yl]amino]phenyl]azo]-4 (eth) (CA IMDEX NAME)

PAGE 1-A -CH2---CH2---

PAGE 1-B Hcn2

64:987.86-0 CAPLUS
1.5-Haphthalcradisolfonic acid. 3-[[2-(acetylamino)-4-[[4-chloro-6-[4-f2-[[1-chloro-6-[19-10-dihydro-9-10 dioxo-2-sulfo-4-[[3-[f2-f(2-sulfoethyl)amino]-1-nathracenyl]amino]-1.3.5-triazin-2-yllamino]ethyll-1-piperazinyl]-1.3.5-triazin-2-yllamino]-1.9(DI) (CA INDEX NAME)

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A

PAGE 1-B

64987-87-1 CAPLUS
IN-Pyrazole-3-carboxylic acid. 4-[4-[4-chloro-6-[4-[2 [[4-chloro-6-[[9.10-dihydro-9.10-dibxo-2-sulfo-4-[[3-[[2-[(2-sulfoethyl)amino]ethyl]sulfonyl]phenyljaminol-1-anthraconyljaminol-1.3.5-triazin 2-yl]amino[ethyl]-1-piperazinyl]-1.3.5-triazin-2-yllaminol 2-sulfophenyl]azo]-4.5-dihydro-5-oxo-1-(1-sulfophenyl)- (901) (CA INDEX

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A

PAGE 1-B

64987-39-3 CAPLUS

1.5-Haphthalendisulfonic acid. 2-[[6-[[4-[4-[2-[[4-[[5-(acetylamino)-4-[4-8-disulfo-2-naphthalenyi)azo]-2-methoxyphenyi]amino]-6-chloro-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyi]-6-chloro-1.3.5-triazin-2-yl]rethylamino]-1-hydroxy-3-sulfo-2-naphthalenyi]azo]- (9C1) (CA INDEX NAME)

PAGE 1 A

LS ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STIL (Continued)

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PAGE 2-B

LS ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

 $641907\cdot 90\cdot 6 \quad \text{CAPLUS} \\ 1.5\cdot \text{Maphthalenedisulfonic acid.} \quad 2\cdot [[6\cdot[[4\cdot[4\cdot[2\cdot[[4\cdot[3\cdot([4\cdot 1])]]]]]]) \\ (\text{Caminocarbory})) \text{ amino}] \cdot 4\cdot [[4\cdot[(2\cdot5\cdot disulfopheny]) \text{ aco}])\cdot 2\cdot 5\cdot disethy) \text{ pheny} [1 \text{ aco}] \text{ pheny} [1 \text{ amino}] \cdot 6\cdot \text{ chloro} \cdot 1.3\cdot 5\cdot \text{ triazin} \cdot 2\cdot y] \text{ amino}] \cdot 1\cdot \text{ phydraxy} \quad 3.5\cdot \text{ disulfo} \cdot 2\cdot \text{ naphthaleny}] \\ \text{aco}] \cdot (\text{9CI}) \quad (\text{CA INDEX NAME})$ 

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PAGE 1-B

644987-92-8 CAPLUS

CN (9CI) (CA INDEX NAME)

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A

PAGE i-B

644987-95-1 CAPLUS
1.5-Haphthalenedisulfonic acid. 2 [[6-[[4-[4-[2-[[4-[[3-[(4-micarbonyl)amino]-4-[[2-sulfo-4-(4-sulfophenyl)azo]phenyl]azo]phenyl]
0-84100\_16-chloro-1.3.5 trazin-2-yl]amino]ethyl] 1 piperazinyl]-6-chloro1.3.5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (9CI)
(CA INDEX NAME)

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

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 $\begin{array}{lll} 64987\cdot93\cdot9 & \text{CAPLUS} \\ 1.5\cdot\text{Raphthalencdisulfonic acid.} & 2\cdot[\{6\cdot[\{4\cdot[4\cdot[2\cdot L[4\cdot[\{3\cdot[(3\cdot l(1+|x|^2)]\}], 2\cdot l(1+|x|^2)]\}\}]\}) \\ 1.5\cdot\text{Raphthalencdisulfonic acid.} & 2\cdot[\{6\cdot[\{4\cdot[4\cdot[2\cdot L[4\cdot l(3\cdot l(1+|x|^2)]], 2\cdot l(1+|x|^2)]\}]\}]) \\ 1.5\cdot\text{Raphthalency} & 1.5$ Cit

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PAGE 1-B

644987-94-0 CAPLUS
1.5-Maphthalenedisulfonic acid. 2-LL6-LL4-L4-[2-[L4-L3-[(amteorarbonyl)amino]-4-[f4-[(2.5-disulfophenyl)azo)-2.5-dimethylphenyl]azo]phenyl]amino]-6-chloco-1.3.5-triazin-2-yl]amino]-1-hydroxy-3-sulfu-2-naphthalenyl]azo]- (9C1) (CA INDEX MAME)

A:SMER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) 644987-96-2 CAPLUS 1.3.6-Naphthalenetrisulfonic acid. 7-F[2-[(aminocarbonyl)amino]-4-F[4-

chloro-6-[[2-[4-[4-chloro-6-[[6-[(1.5-disulfo-2-naphthaleny])]azo]-5-hydroxy-7-sulfo-2-naphthalenyllamino]-1,3.5-triazin-2-yl]-1-piperazinyl]ethyl]amino]-1,3.5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA IMDEX IAME)

PAGE 1-A

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64987-97-3 CAPLUS
HH-Pyracole-3-carboxylic acid. 3-[[5-[[4-chloro-6-[[2-[4-[4-chloro-5-[[6-[(1.5-disulto 2-naphthalenyl)axio]-5-hydroxy-7-sulfo-2-naphthalenyl]emino]1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]amino]-1.3.5-triazin-2-yl]awino]-2sulfophenyl]azo]-4.5-dihydro-5-oxo 1-(4-sulfophenyl)- (9CI) (CA IRDEX IRME)

15 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STR (Continued)

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614987-98-4 CAPLUS

64987-98-4 CAPUS

1.5-Haphthalencdisulfonic acid. 2-[[6-[[4-[4-[2-[[1-[[5-[(aminocarbonyl)amino]-4-[(4,8-disulfo-2-naphthalenyl)azo]-2-mcthoxyphcnyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

644988-01-2 CAPLUS 1.3.6-Naphthalenetrisulfonic acid. 7-{[2-(acetylamino) 4 [[4 chloro-6 [4-[2 [[1-chloro-6-[16-[(1.5-disulfo-2-naphthalenyl)aco]-5-hydroxy-7-sulfo-2-naphthalenyl) jmethylaminoj-1.3.5-triazin-2 yl]aminoj-thyl] 1 phyorazinyl] 1.3.5 triazin-2-yl]aminoj-5-methoxyphenyl]azo]- (901) (CA INDEX NAME)

PACF 1-A

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644988-02-3 CAPLUS

AMENUER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIR (Continued) 6-chloro 1.3.5-triazin-2-yl]amino]ethyl]-1-ptperazinyl]-6-chloro-1.3.5-triazin-2-yl]amino]-5-methoxyphonyl]azo]- (901) (CA INDEX MAME)

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644988-00-1 CAPLUS

0-H300-00-1 CM-13.6-Haphthalenetrisulfonic acid. /-[[2-(acetylamino)-4-[[4-chloro-6-[[7-[4-[4-chloro-6-[[6-[(1.5-disulfo-2-naphthalenyl)azej-5-nydroxy-/-sulfo-2-naphthalenyl]mchtylaminoj-1.3.5-triazin-2-yl]-ippreorainjlethylaminoj-1.3.5-triazin-2-yl]-ippreorainjlethylaminoj-1.3.5-triazin-2-yl]aminoj-6-methoxyphenyl]azol- (9CI) (CA H30EX NAME)

PAGE 1-A

L5 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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644909-03-4 CAPLUS
1.3.6-Haphthalcnetrisulfonic acid. 7-ff2-(acetylamino)-4-ff4-ff2 [4 [4-ff5-(acetylamino)-4-ff4.8-disulfo-2-naphthalcnyl)argh-sethoxyphenyllarino)-6-diloro-1.3.5-traizin-2-yll-1-piperazinyl]ethyl]arino]-6-diloro-1.3.5-traizin-2-yllamino]-6-methoxyphenyl]azo]- (9C1) (CA INDEX NAME)

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

644988-04-5 CAPLUS

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644988-05-6 CAPLUS
IH-Pyrazole 3 carboxylic acid. 4-[[5-[[4-[2-[4-[4-[5-[(aninocarbony]) Jamino]-4-[(4,3-disulfo-2-naphthaleny]) Jazol-2-methoxyphevy] Jamino]-4-[(4,3-disulfo-2-naphthaleny] Jazol-2-methoxyphevy] Jamino]-6-chloro-1.3.5-triazin-2-yl]-1-pperazinyl Jetiyl Jamno]-6-chloro-1.3.5-triazin-2-yl]amino]-2-sul fophenyl Jazol-4.5-dihydro-5-oxo-1-(4-sul fophenyl)- (9CI) (CA INDEX

15 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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614988-07-8 CAPLUS

641908-07-3 CAPLUS

1.5-Haphthalenedisulfontc acid. 2-[6-[4-[4-[2-[4-[3-[7-[5-(acetylamino)-2-sulfophenyl]azo]-8-amino-1 hydroxy-3.6 disulfo 2 naphthalenyl]azo]-1-sulfophenyl]amino]-6-chloro-1.3.5-Leriazin-2-yl]amino[4-finatin-2-yl]amino[4-

PAGE 1-A

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 $\label{eq:continuous} 644988.08-9 \quad \text{CAPLUS} \\ 1.3.6-\text{Naphthalenetrisulfunic acid.} \quad I-[[2] \ [(aminocarbuny1)amino]-4-[[4-[]4-[2-[]5-(gainocarbuny1)-1-ethyl-1-6-dihydro-2 hydroxy-4-methyl-6-0-0-3-pyridiny]1acid-1-2-ultophony1]amino]-6-chloro-1.3.5-triazin-2-ylamino]ethyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-ylamino]phcnyl]azo]- (gCI) \quad (CA_IHUEX_MAME)$ 

LS - ANSWER 2 OF 40 CAPLUS - COPYRIGHT 2004 ACS on STN (Continued)

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644988-06-7 CAPLUS

CN

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L5 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

644988-09-0 CAPLUS
1.3.6-Naphthalenetrisultonic acid. 7-[[2-[(aminocarbonyl)amino]-4-[[4-[4-[2-[4-[[5-([5-(aminocarbonyl)-1-eLhyl-1.6-dihydro 2-hydroxy-4-methyl-6-oxo-3 pyridinyl]azo] 2.4 disulfophenyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]phenyl]azo] (901) (CA IMDEX NAME)

LS ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on Sill (Continued)

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L5 ANSWER 2 OF 40 CAPIUS COPYRIGHT 2004 ACS on STN (Continued)

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611988-11-4 CAPLUS

CN

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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 $\label{eq:continuous} \begin{array}{lll} 641986-12-5 & \text{CAPLUS} \\ 1.3.5-\text{Naphthalemetricultonic acid.} & 7-[[2-(acetylamino)-4-[[4-chioro-6-[[2-[4-(4-chioro-6-[[3-[4-(2-5-diaz)-5-hydroxy-7-sulfo-2-naphthalenyl]amino]-1.3.5-triazin-2-yl]-1-piperazinyl] othyl Jamino]-1.3.5-triazin-2-yl]amino]-5-methoxyphenyl]azo]- (9C1) & (CA_INDEX_NAME) \\ \end{array}$ 

15 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN

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PAGE 1-B

644983-13-6 CAPLUS 2.7-Naphthalenedisulfonic acid. 5-[[4-[[2-[4-[4-[45-[[5-(aminocarbonyl)-1-2.7-napholaleneus surrollic actu. 5-[[4-1[2-4]-14-[15-[[5-4]-14minogarconyr)-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-py-dihyl-Jaco]-2,4-disul fophenyl Jaminoj-6-chloro-1,3,5-t-riazin-2-yl-1-py-pazinyl-jethyl-Jaminoj-6-chloro-1,3,5-t-riazin-2-yl-1-minoj-4-hydroxy-3-f(2-sul-fophenyl-)azo]- (901) (CA INDEX NAKE)

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) piperazinyl]ethyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]phenyl]azo]-(9CI) (CA INDEX NAME)

PAGE 1-B

 $\begin{array}{lll} 614988\cdot 18&1& \text{CAPLUS}\\ 1.5\text{-Naphthalenedisulfonic actd.}&3\cdot \lceil 2\cdot (acetylaxino)\cdot 4\cdot \lceil 4\cdot (b\cdot c)\cdot c \rceil \\ ([4\cdot chlore-6\cdot \lceil 6\cdot \lceil 6\cdot (2.5\cdot disulfophenyl)azo]&5\cdot hydroxy\cdot 7\cdot sulfo\cdot 2\cdot naphthalenyl]axino]&1.3.5\cdot triazin-2\cdot yl]axino]ethyl]\cdot 1\cdot piperazinyi]\cdot 1.3.5\cdot triazin-2\cdot yl]axino]\cdot (9C1)& (CA_BUEX_BAME)&1.3.5\cdot triazin-2\cdot yl]axino]&1.3.5\cdot triazin-2\cdot yl]axino]&2\cdot yl]axino]&3\cdot yl]axino]&$ 

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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PAGE 1-B

644988-16-9 CAPLUS

1.3.6-Waphthalenetrisulfonic acid. 7-[[2-[(aminocarbonyl)amino]-4-[[4-[[2-[4-[4-[15-[[5-(aminocarbonyl)-1-ethyl-1.6-dihydro-2-hydroxy 4-methyl-6-oxo-3-pyridinyl]azo] 2.4 disulfophenyl]amino]-6-chloro-1.3.5-triazin-2-yi]-1-CN

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STH (Continued)

PAGE 1-B

 $\begin{array}{lll} 644903\cdot20\cdot5 & \text{CAPLUS} \\ 1.3.6-\text{Naphthalenetrisul} & \text{fonic acid.} & 7\cdot[\{2\cdot\{(\text{aminocarbonyl})\text{2mino}\}\cdot4\cdot[\{4\cdot\text{chloro}\cdot6\cdot\{4\cdot\text{CaPL}\}\cdot\text{chloro}\cdot6\cdot\{6\mid\{2\cdot5\cdot\text{chloul}\text{Topkenyl}\}\text{2mio}\}\cdot5\cdot\text{hydrmy}; 7\cdot\text{sulfo-2-naphthalenyl}\} & \text{aminol-1}\cdot3.5\cdot\text{chiain-2-yl}\}\text{aminol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\}\text{aminol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthyl}\cdot1-1.3.5\cdot\text{chiain-2-yl}\text{3minol-pthy$ 

PAGE 1-B

644988-22-7 CAPLUS

o44986-22-7 CAPLUS
L5-Haphthal Inedia Willonic acid. 2 [[?-(acetylamino)-4-[[4-chloro-6-[[2-[4-[4-chloro-6-f[6-f[2-5-disul [opthemyl) azu]-5-hydroxy-7-sul fo-2-naphthal nyl jamino]-1,3-5-traiari-2-yi]-1-piperaziny]ethyl jamino]-1,3,5-triazin-2-yi]amino]-5-methoxyphenyl jazo]- (9C1) (CA IMDEX WAME)

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644988-24-9 CAPLUS

1.5-Naphthalenedisulfonic acid. 2-[[6-[[4-chloro 6-[4 [2-[[4-chloro-6-[[6-[(2.5-disulfophenyl)azo]-5-hydroxy-7-sulfo-2-naphthalenyl]amino]-1.3.5-

ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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644988-28-3 CAPLUS
1.5-Haphthalencdisulfonic acid, 2 [[6 [[4-[[2-[4-[4-[5-(acetylamino)-4-[4-8-disulfo-2-naphthaleny]]azo]-2-methoxyphenyl]amino]-6-chloro-1,3,5-triazin-2-yl]-1 piperazinyl]ethyl]amino]-6-chloro-1,3,5-triazin-2-yl]methylamino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (9C1) (CA INDLX NAME)

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644988-30-7 CAPLUS

o4998-30-7 CAPLUS

1.3.6-Maphitalentrisulionic acid. 7 [[2-(acetylamino)-4-[[4-chloro-6-[4-chloro-6-[4-chloro-6-[5-nydroxy-7-sulfo-6-(2-sulfopheny)]azo]-2-naphitalonyi]amino]-1.3.5-triazin-2-yllamino]-1-piperazinyl]-1.3.5-triazin-2-yllamino]-5-matthoxyphenyi]azo]- (9[1) (CA IMDEX IMME)

I5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STH (Continued) triazin-2-yljaminojethylj-1-piperazinylj-1.3.5-triazin-2-yljaminoj-1-hydroxy-3-sulfo-2-naphthalenyljazoj- (9CI) (CA INDEX NAME)

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644988-26-1 CAPLUS

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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644988-32 9 CAPLUS

PAGE 1 A

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AHSWCR 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STH (Continued) 644988-31-1 CAPLUS 1.5 Maphthal condisulfonic acid. 3-[[2-(acetylamino)-4-[[4-chloro-6-[4-[2-

[(4-chloro-6-[[8-hydroxy-7-[(5-methyl 2-sulfophenyl)azo]-3.6-disulfo-1-naphthalenyl]amino]-1.3.5-triazin-2-yl]amino]ethyl]-1.piperazinyl] 1.3.5-triazin-2-yl]amino]-5-methoxyphenyl]azo]- (9Cl) (CA INDEX NARF)

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 $\begin{array}{lll} 644988\cdot36\cdot3 & \text{CAPLUS} \\ 1.5\text{-Naphthaleneds sulfonic acid.} & 3\text{-}[\{2\text{-}(acetylamino})\text{-}4\text{-}\{\{4\text{-}chloro\text{-}6\text{-}[4\text{-}\{2\text{-}(also^2+also^$ CN

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STW (Continued)

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644988-40-9 CAPLUS

16-Maphthalencdisulfonic acid. 3 [[2 (acctylamino)-4-[[4-chloro-6-[4-[2-[[4-chloro-6-[7-(2.4-disulfophenylbazo]-8-hydroxy-3,6-disulfo-1-naphthalenylbasino]. 1,35 triazin 2 yd]amino[chy]-1-piperaziny]-1,3.5-triazin-2-yl]amino]-5-methoxyphenyl]azo]- (9C1) (CA NOEX NAME)

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PAGE 1 B

644983-42 1 CAPLUS

1.5-Naphthalenedisulfonic acid. 3-[[2-(acetylamino)-4-[[4-chloro-6-[4-[2-

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued) PAGE 1-A

PAGE 1-B

61988-38-5 CAPLUS
1.5 Maphthalenedisulfonic acid. 3-[[2-(acetylamino)-4-[[4-chloro-6 [4-{2-[[4-chloro-6-[[8-hydroxy-7-[(4-methyl 2-sulfophonyl)azo]-3.6-disulfo-1-naphthalonyl]amino]-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl] 1.3.5-triazin-2-yl]amino]-5-methoxyphonyl]azo]- (901) (CA INDEX NAME) CH

PAGE 1-A

MISWER 2 UF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) [f4-chloro-6-[[6-fydroxy-7-[(4-mcthyl-2-sulfophenyl)azo]-3.6-disulfo-1-aphthalenyl]aaning]-1.3.5-triazin-2-yil]-1-piperazinyl]ethylaming]-1.3.5-triazin-2-yil]-aphylaming]-1.3.5-triazin-2-yil]-am

PAGE 1-A

PAGE 1-B

644988-44-3 CAPLUS

negron-94-3 Cartus 13.6-Haphthalenetrisulfonic acid. 7 [[?-(acetylamino)-4-[[4-chloro-6-[[2-[4 (4-chloro-6-[[5-hydroxy-7-sulfo-6-[(2-sulfophenyl)aco]-2-nephthalenyl]amino]-1.3.5 triatin-?-yill-piperazinylethyl]amino]-1.3.5-triazin-2-yi]amino]-5-methoxyphenyl]azo]- (9Cl) (CA [HDFX NAWF)

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ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

644988-46-5 CAPLUS

ourses-46 b. CAPLES
1.7 Raphthalenedisulfonic acid. 2-[[4-chloro-6-[[2-[4-[4-chloro-6-[[8-hydroxy-3.6-disulfo-7-[(2-sulfophenyl)azo]-1-naphthalenyl]amino]-1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]amino]-1.3.5-triazin-2-yl]amino] 5-hydroxy-6-[[2-sulfo-4-[(4-sulfophenyl)azo]phenyl]azo]- (9C1) (CA\_NDEX\_NAMF)

PAGE 1-B

644988-48-7 CAPLUS

1.7-Naphthalenedisulfonic acid. 2-[[4-chloro-6-[4-[2-[[4-chloro-6-[8-

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A

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PAGE 1-C

-S03H

644688-50-1 CAPLUS

2.7-Waphthalenedisulfonic acid. 5-[[4-[4-[2-[[4-[3-[[5-(aminocarbony])-1-cfly]-1.6-dhydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-4-sulfophenyl[]azino-2-1.5-dhydroxy-3-lifening-1.5-dhydroxy-3-[2-sulfophenyl]-4-hydroxy-3-[(2-sulfophenyl)azo]- (OCI) (CA INDEX INNE)

ANSWER 2 0F 40 CAPLUS COPYRIGHT 2004 ACS on SIN (Continued) hydroxy-3.6-disulfo-7-[(2-sulfoplenyl)azo] 1-naphthalenyl]aminol-1,3.5-triazin 2 yl]aminolethyl]-1 pipcnazinyl]-1,3.5-triazin-2-yl]aminol-5-nydroxy-6-[[2-sulfo-4-[(1-sulfoplenyl)azo]phonyl]azo]- (9C1) (CA\_INDEX\_INES)

PAGE 1-B

614988-40-8 CAPLUS
1.3.6-Maphthalenetrisultonic acid. 7-{[2-[(aminocarbonyl)amino]-2-[[4-chloro-6-[[2-[4-chloro-6-[[5-iydroxy-1.7-disulfo-6-[[2-sulfo-4-[(4-sulfo-4-[4-chloro-6-[12-[4-chloro-6-[12-sulfo-4-[4-chloro-6-[12-sulfo-4-[4-sulfo-4-[4-sulfo-6-[12-sulfo-4-[4-sulfo-4-[4-sulfo-6-[12-sulfo-4-[4-sulfo-6-[4-sulfo-4-sulfo-6-[4-sulfo-4-sulfo-6-[4-sulfo-4-sulfo-6-[sulfo-6-[sulfo-6 CN

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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15 AMSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

611988-52-3 CAPLUS

oingus-52-3 Chritis

2.7 Maphthalenedisulfonic acid. 5-[[1-[4-[2-[[4-[5-[45-(aminocarbonyl)-1-ethyl-1.6-dihydro-2-hydroxy 4 mcthyl-6-oxo-3-pyridinyl]azol-2.4-disulfophenyl laminoj-6-chloro-1.3.5-triazin-2-yl]aminojethyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-yl]aminoj-4-hydroxy-3-[(2-sulfophenyl)azol- (9C1) (CA INDEX NAME)

15 ANSWER 2 OF HO CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

644988-54-5 CAPLUS

o+988-51-5 CAPUS

1./-flaphthalened(sulfonic acid, 2-[[4-[4-[2-[[4-[4-[]5-(aminosarhonyl)-1-ethyl-1.6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo1-2.5-disulfophenyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-yl]amino]-6-hydro-1.3.5-triazin-2-yl]amino]-6-hydro-1.3.5-triazin-2-yl]amino]-6-hydro-1.3.5-triazin-2-yl]amino]-6-hydro-1.3-triazin-2-yl]amino]-6-hydro-1-hy

L5 ANSWER 2 OF 40 CAPEUS COPYRIGHT 2001 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

644988-53-4 CAPLUS 2.7-Naphthalcoedisulfonic acid. 5-[[4-[[2-[4-[4-[[4-[[5-(eminocarbony])-1-ethyl-1.6-dhydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-2.5-disulfophenyl]amino]-6-chloro-1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]amino] 6 chloro-1.3.5-triazin-2-yl]amino]-4-hydroxy-3-[(2-sulfophenyl)azo]- (901) (CA INDEX MAKE)

LS - AUSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM

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offstions of American Lands and Conference of the Conference of th

ANSMER 2 OF 40 CAPLUS COPYRIGHT 2001 ACS on SIN (Continued) [(4-sulfophenyl)azo]phenyl]azo]- (901) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

 $\label{eq:continuous} \begin{array}{lll} 644988\cdot57\!-8 & \text{CAPLUS} \\ 1.5\text{-}14aphthalenedisulfonic acid.} & 2\text{-}[2\text{-}(acetylamino)\text{-}4\text{-}[1\text{-}\{12\text{-}[4\text{-}[$ 

PAGE 1-A

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)

PAGE 1-B

614988-59-0 CAPLUS
1.7-Maphthalenedisulfonic acid. 2-[[4-[4-[2-[[4-[[4-[2-amino-8-hydroxy-3.6-disulfo-1-naphthaleney]]anno]-8-chloro-1.3.5-triazin-2-yl]amino]-8-chloro-1.3.5-triazin-2-yl]amino]-8-hydroxy 6 [[2-sulfo-4-[(4-sulfophenyl]azo]-hydroxy 6 [[2-sulfo-4-[(4-sulfophenyl]azo]-hydroxy 6 [[2-sulfo-4-[(4-sulfophenyl]azo]-hydroxy 6]

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-6

61980-58-9 CAPLUS
1.5-Naphthalenedisulforic acid. 2-[[2-(acetylamino)-4-[[4-[4-[2-[[4-[[4-[2-amino 8-hydroxy-3.6-disulfo-1-naphthalenyl]azo]-3-sulfophenyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl]-6-chloro 1.3.5-triazin-2-yl]amino]-5-methoxyphenyl]azo]- (9CI) (CA INOEX MAME)

PAGE 1-A

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

644988-60-3 CAPLUS 1.3.6 Naphthalenetrisulfonic acid. 7-[[2-[(aminocarbonyl])amino]-4-[[1-[[2-[4-[4-[4-[(2-amino-2-byeroxy-3.6-disulfo-1 naphthalenyl])aro]-3-sulfophonyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]-figura (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

ARSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STR (Continued) 644988-61-4 (APLUS 1.5-Maphthalenedisulfonic acid. 2-[[2-(acetylamino)-4-[[4-chloro-6-[[2-[4-[chloro-6-[[8-hydroxy-3.6-disulfo-7-((2-sulfophenyl)azo]-1-naphthaleneyl]aminoj-1.3.5 triazin-2-yl]-1-piperariny]ethylaminoj-1.3.5 triazin-2-yl]-1-piperariny]ethylaminoj-1.3.5-triazin-2-yl]aminoj-5-methoxyphenyl]azoj- (9CI) (CA INDEX NAME)

PAGE 1-A SOSH 1:035

PAGE 1-B

-S03H

615-105-61-4 CAPLUS Cuprate(6-). [4-[[4-[4-[4-[2-[f4-[3-[ff[2-(carboxy+K0)-4-sulfopleny]]azo-kl2]phenylmethyl]azo-kl2]-2-(hydroxy-k0)-4-sulfophenyl]amino]-6-chloro-1.3.5-triazin-2-yllamino]ethyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-yllamino]-2-sulfophenyl]azo] 4.5 dihydro-5-cou-1-(4-sulfophenyl)-1H-pyrazole-3-carboxylato(8-)]-. hexahydrogen (9C1) (CA\_INDLX\_NAME)

L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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L5 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS ON STM

(Continued)

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PAGE 1-B

203-

15 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

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PAGE 1-8 ţ03-

 $\label{eq:control_co$ 

PAGE 1-A

PAGE 1-B

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 8 ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

The invention refers to piperazine-based halotriazine reactive disazo dyes (1: A optionally substituted 2-sulfophenyl or 1-sulfo-2-naphthyl: E = H. SOOM: G = arylazohydroxysulfonaphthyl: H = H. anmaontum. alkali. alkaline earth metal/2. RI-RS = H. optionally substituted alky: XI. X2 = halogen: a. v. 2-5: x. y = 0. 1: z = 0-4). Scarlet l are prepared with 2 different chromophores and have excellent fastness properties. In an example, a dye was prepared starting with 1: (2-aminoethyl)piperazine and condensing with 2 different dichlonotriazinyl azo dyes. 475670-12-82 475670-13-44 475670-15-60 475670-17-88 475670-19-0P 475670-21-4P 475670-13-8P 475670-19-0P 475670-22-9P 475670-23-9P 475670-25-9P 475670-33-9P 475670-35-0P 475670-32-P 475670-33-9P 475670-35-0P 475670-33-P 475670-35-0P 475670-3 The invention refers to piperazine-based halotriazine reactive disazo dyes

hydroxy-3-sulfo-2-maphthalenyl]azo]- (9CI) (CA INDEX MAME)

H039

#### Page 21

ANSWER 3 OF 40 CAPLUS COPYRIGHT 2001 ACS on STN 2002:888829 CAPLUS 137:385992 ON TI IN Reactive scarlet azo dyes, their production and their use Ebenezer, Warren James Dystar Textiliarben G.m.b.H. & Co. Doutschland K.-G., Gormany PCT Int. Appl., 20 pp. CCUEN: PIXXD2 SO DT Patient. English FAN CHT 1 PATENT NO. KIND DATE APPLICATION NO. DATE 2092697 A1 20021121 W0 2002-EP4908 20020504
AE. AG. AI. AM. AT. AU. AZ. BA. BS. BS. BS. BY. BZ. CA. CH. CY.
CO. CR. CU. CZ. DC. DK. DM. DZ. EC. FE. ES. FI. GB. GD. GE. GH.
GM. HR. HU. ID. IL. III. IS. JP. KE. KG. KP. KK. KZ. LC. LK. LR.
LS. LI. LU. LV. MA. MD. MG. MK. MI. MG. MK. MZ. MO. NZ. CM. PH.
PL. PT. RO. RU. SD. SE. SG. SI. SK. SL. IJ. IM. III. TR. TT. TZ.
UA. UG. IS. UZ. VN. YU. ZA. ZM. ZW. AM. AZ. BY. KG. KZ. MD. RU.
TJ. TH. WO 2002092697 RY 10.1 TM RY: GH. GM. KF. IS. Md. MZ. SD. SL. SZ. TZ. US. ZM. ZW. AT. BE. CH. CY. DE. DK. ES. FI. FR. GB. GR. IF. IT. LIJ. MC. NI. PT. SL. TK. BF. BJ. CF. CG. CI. CM. GA. GR. GD. GW. ML. MR. NC. SN. 1D. TG. 20020504 RY: AT. BF. CH. DE. DK. ES. FR. GB. GR. IT. LIJ. LU. NL. SE. MC. PT. IE. SI. LI. LV. FI. RD. MK. CY. AI. TR. BR. CO02009366 A. 20020501 US. 2004138435 AI. 20040715 US. 2003-477074 20031106 GB. 2001-11573 A. 20010501 US 2004138435 PRAT GB 2001-11573 WO 2002-EP4908 MARPAT 137:385992

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN

(Continued) PAGE 1-B

475670-15-6 CAPLUS

1.5-Naphthalenedisulfonic acid. 4-[[8-[[4-chloro-6-[4-[2-[[4-chloro-5-[[5-hydroxy-7-sulfo-6-[(2-sulfophenyl)azo]-2-naphthalenyl]amtho]-1.3.5-triazin-2-yl]amtho[ethyl]-1-piperazinyl]-1,3-5-triazin-2-yl]amtho]-1-hydroxy-3.6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

L5 ANSWER: 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-B

475670-17-8 CAPLUS

47307-17-0 CAPLUS

1,5-Naphthalenedisulfonic acid. 2-[[6-[[4-chloro-6-[[2-[4-(4-chloro-6-[[8-hydroxy-3.6-disulfo-7-[(2-sulfophenyl)azo]-1-naphthalenyl]amno]-1.3.5-triazin-2-yl]-piperaxinyl [ethyl lamino]-1.3.5-triazin-2-yl]-piperaxinyl [ethyl lamino]-1.3.5-triazin-2-yl]-piperaxinyl [ethyl lamino]-1.3.5-triazin-2-yl]-piperaxinyl [ethyl lamino]-1.3.5-triazin-2-yl]-piperaxinyl [ethyl]-piperaxinyl [ethyl lamino]-1.5-triazin-2-yl]-piperaxinyl [ethyl lamino]-1.5-triazin-2-

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

475670-21-4 CAPLUS
1.5-Naphthalenedisulfomic acid. 2-[[6-[[4-chloro-6-[4-[2-[[4-chloro-6-[8-lydroxy-7-[(4-methyl-2-sulfophenyl)azo]-3.6-disulfo-1-naphthalenyl]]amino]-1.3.5-triazin-2-yl]amino]-1-lydroxy-3-sulfo-2-naphthalenyl]azo]- (9C1) (CA INDEX NAME)

475670-23-6 CAPLUS
1.5-Naphthalenedisulfonic acid. 2-[[6-[[4 chloro 6-[4-[2-[[4-chloro-6 [[8-

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STI! (Continued)

PAGE 1-A

PAGE 1-B

PAGE 1-A -NH-- CH2-- CH2--11035 S03H H03S

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) hydroxy-7-[(4-methyl-2-sulfophenyl)azo]-3.6-disulfo-1-naphthalenyl]amino]-1.3.5-triazin-2-yl]methylamino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-B

$$\label{eq:continuous} \begin{split} 475670-25-8 \quad & \text{CAPLUS} \\ 1.5-\text{Raphthalenedisulionic acid.} \quad & 2-[[6-[[4-chloro-6-[4-[2-[[4-chloro-6-[7-[7-[4-5-dimghy]-2-sulfopheny]]abzo]-8-hydroxy-3.6-disulfo-1-naphthalenyl]abzon-1-3.5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]abzol-(9CI) \quad & \text{CA-INDEX-IMME.} \end{split}$$

PAGE 1-B

475670-26-9 CAPLUS
1.5-Maphthalenedisulfonic acid. 2-[[6-[[4-chloro-6-[[2-[4-chloro-6-[[8-hydroxy-3.6-disulfo-/-[(2-sulfophenyl)azo]-1-naphthalenyl]amino]-1.3.5-triain-1-2-yl-1-piperasinylethyl]amino]-1.3.5-triazin-2-yl-1-piperasinylethylamino]-1.3.5-triazin-2-yl-1-piperasino]-1-hydroxy-3.5-disulfo-2-naphthalenyl]azo]-(9CI) (CA IMDEX MAME)

PAGE 1-A

4.5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)

PAGE 1-B

475670-28-1 CAPLUS
1.5-Naphthalenedisulfonic acid. 2-ff6-f[4-chloro-6-f4-f2-ff1-chloro-6-ff7-[(1.5-disulfo 2-naphthalenyl)azo] 8-hydroxy 3,6-disulfo-1-naphthalenyl]amino]-1.3.5-triazin-2-yl]amino]-1.3.5-triazin-2-yl]amino]-1-hydroxy 3-sulfo-2-naphthalenyl]azo]- (9CI) (CA IMDEX NAME)

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L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-B

475670-27-0 CAPILUS

RH 4/bm/2/-U\_GA/US 1.5-Maphthalenedisul fonic acid. 2-[L6-[L4-chloro-6-[4-[2-[L4-chloro-6-[[8-hydroxy-7-[(4-methyl-2-sulfophenyl)azo]-3.6-disulfo-1-naphthalenyl]amino]-1-3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5-triazin-2-yl]amino]-1-hydroxy-3.5-disulfo-2-naphthalenyl]azo]- (9CI) (CA\_MDFX\_MAME)

PAGE 1-A

(CA INDEX NAME)

PAGE 1-A

PAGE 1-B

475670-33-8 CAPLUS

1.5-Naphthalenedisulfonic acid. 2-[[6-[[4-chloro-6-[4-[2-[[4-chloro-6-[[7-[(1.5-disulfo-2-maphthalenyl)azo]-8-hydroxy-3.6-disulfo-1 naphthalenyl]amino]-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5 $triazin-2-yl] amino]-1-hydroxy-3.5-disulfo-2\ naphthalenyl] azo]-\ (9CI) \quad (CA) = (-1)^{-1} + (-1)^{$ INDEX NAME)

PAGE 1-A

PAGE 1-B

475670-35-0 CAPLUS 1.5-Naphthalenedisulfonic acid. 2-[[6-[[4-chloro-6-[[2-[4-[4-chloro-6-[[7-[4.8-disulfo-1-naphthaleny]]azo] 8 hydroxy-3.6 disulfo 1 naphthaleny]]amino]-1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]amino]-1.3.5-triazin-2-yl]amino]-1-hydroxy-3.5-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

475670-37-2 CAPLUS
1.5-Naphthalenedisulfonic acid. 2-[[b-[[4-chloro-6-[[2-[4-[4-chloro-6-[[7-[(2.5-disulfopienyl)azo]-8-hydroxy-3.6-disulfo-1-naphthalenyl]amino]-1.3.5-trazin-2-yi]-1-piperazinyl[etyl]amino]-1.3.5-trazin-2-yi]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]- (901) (CA INDEX NAME)

LS ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM

PAGE 1-A

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475670-36-1 CAPLUS

n/30/03/1 United States of the American State

1.5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) PAGE 1-B

475670-39 4 CAPCUS
1.5-Maphthalenedisulfunic acid. 2-[[6-[4-chloro-6-[4-[2-[[4-chloro-6-[/[(2.5 disulfopineyl]azo]-8-hydroxy-3.6-disulfo-1-naphthalenyl]amino]-1.3.5triacin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5triacin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5triacin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5triacin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5triacin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5triacin-2-yl]amino]ethyl]-1-piperazin-2-yl]-1-piperazi

PAGE 1-8

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued)

PAGE 1-B

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT RE.CNT 3

ANSWER 4 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

NMe2

PAGE 1-B

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RL.CNI 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 2002:6713 CAPLUS AH DH 136:85833 136:88833
Preparation of H-(diaminotriazinyl)arylaldehyde hydrazones and analogs as activiral agents
Arends, Jaime E.: Cload. Sharon T.: Fleming, Elizabeth S.: Xiang, Yi Bin Scriptgen Pharmaceuticals. Inc., USA
U.S., 114 pp.
CODFR: USXXVM IN SO Di Patent English FAN.CHT 1

PATENT NO.
P1 US 6335339
PRAT US 1998-113656P
OS MARPAT 136:85833
G1 PATENT NO. KIND DATE APPLICATION NO. DATE В1 20020101 US 1999-229703 19990113 19980113

Title compds. [e.g., I: R1-R8 = II. (un)substituted alk(en)yl. -(hotcro)aryl. etc.: R1R2.R3R4.R7R8 = atcoms to complete a ringl were prepared Prepared ion of select I (e.g., R1 = CIR2Ph, R2 = R4 = R7  $\times$  H. R3  $\times$  CMc3. R3  $\times$  CGH4F-2) was described. Data for biol. activity of 1 were given.

232937-54-1P

RL: PAC (Pharmacological activity): SPN (Synthetic preparation): THU (Therapeutic use): B10L (Biological study): PRLP (Preparation): USES

(preparation of N-(diaminotriazinyl)arylaldehyde hydrazones and analogs as antiviral agents)
232937-54-1 CAPLUS

2020/1941 University of the Community of

ANSWER 5 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN 2001:932571 CAPLUS

DN TI 136:55381

Ink-jet inks, printing method and units therewith, their ink cartridges ink sets and apparatus Kanke. Takeshi: Mafune. Kumiko

Canon Inc., Japan Jpn. Kokai Tokkyo Koho, 21 pp. CODEN: JKXXAF SO

DT Patent

Japanese

FAN.CHT 1 PATENT NO. KIND DATE APPLICATION NO. DATE JP 2001354881 20011225 JP 2000-176136 20000612 PRAT JP 2000 176136 20000612 MARPAT 136:55381

† STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY — AVAILABLE VIA OFFLINE PRINT \*

Title aqueous inks, with good light and smudge resistance, contain I  $\pm RI$  = Title aqueous inks, with good light and smudge resistance, contain I [RI = (substituted) alkoy, (substituted) aryl; R2, RI = H, (substituted) alkyl; R3 = H, (substituted) arylov, halogen; XI = CC3H (salt) or SO3H (salt); n = 1-2] and II [Arl.  $M^2$  = (substituted) aryl with at least one of Arl and Ar2 substituted with (KXH (salt) or SO3H (salt); L = divalent organic group; M = H, alkal) metal. MH. organic ammonicm: R5 - triazine (derivative); R6, R7 = H, (substituted) alkyl, (substituted) aralkyl, perhydroxyazine ringl. An aqueous ink containing I (R1-R1 = H, XI = p-COCH or salts, n = I) and II (Arl. Ar2 = o-CCCHC6H1, L = III, M = II, R5 = IV, K6 = R7 = H) was used to princ en various paper to form prints having good color tone, light resistance (100 h, fadecmeter), and smodge prevention (after I wk at 30° and 80% relative humidity). 328604-55-90, free acid/salts with L1, Ha, NHH or queternary

382604-55-90, free acid/salts with Li. Na. NH4 or quaternary

382604-55-90. free acid/salts with Li, ha, har or governor, amontum

R: TEM (Technical or engineered material use): USCS (Uses)
(aqueous ink-jct inks containing disazo and benzoanthracene dyes for light and smudge resistance)
382604-95-9 CAPLUS
Benzoic acid. 2.2: (1.4-piperazinediylbis[3.1-propanediylimino(1.6 dihydro-6-oxe-1.3.2 trip2in=1.2 diyl)imino(8-hydroxy 3.6 disulfo-1.7-naphthalenediyl)azo]]bis- (9CI) (CA INDEX NAME)

L5 ANSWER 5 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

L5 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN (Continued)

PAGE 1-A

PAGE 1-B

ANSWER 6 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 2001:746973 CAPLUS 135:3051/8

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IN PA SO

Individual/8
Reactive dyes and their application
Patsch, Mantred: Seybold. Guenther
Dystar Textifarben GmöH & Co. Deutschland KG. Germany
Ger. Offen., 13 pp.

CODEM: GWXXBX Patent

ĎТ German

LA Germa FANLCHT 1

PATERT NO. KIND ÁΙ

APPLICATION NO. DATE 20011011 DE 2000 10008871

**ΒΑΤΕ** 20000225

PI DE 100088/1 PRAI DE 2000-10009871 OS MARPAT 135:3051/8 GI

Reactive dyes I (A  $^{\circ}$  organic group: R1, R2 = H, organic group: X = chromophore, such as azo, with optional fiber-reactive groups: Z = imino-containing connective group: m=0, 1: n=1,2,3: p=0,1,2: q=0,1,2) are disclosed which are suitable for dying or printing of substrates containing OH groups or N atoms. I are especially suitable for application in combination with other dyes. Several examples of reactive dis- and trisazo dye production where diven

wene given. 366001-29-8P 366001-30-1P 366001-32-3P 366001-33-4P

RE: IMF (Industrial manufacture): RCI (Reactant): TEM (lechnical or engineered material use): PREP (Preparation): RACT (Reactant or reagent): USLS (Uses)

(dye: production of reactive dis- and trisazo dyes)
366001-29-8 CAPLUS
Acetic acid. [[4-[[3-[(aminocarbonyl)amino]-4-[(3.6.8-trisulfo-2naphthalenyl Jazolphenyl Jamino]-6 [4 [2-[[4-[[5] (aminocarbonyl Jamino]-4-[(3.6.8-triazin-2-y] Jamino]-thalenyl Jazolphenyl Jamino]-6-[(carboxymethyl)thio]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl]-1.3.5-triazin-2-yl Jamino]-thyl]-1-piperazinyl Jamino]-1-piperazinyl Ja (9CI) (CA INDEX NAME)

ANSWER 6 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

366001-32-3 CAPLUS
Acetic acid, [[4-[[3-[[1-aaino-7-[(1.5-disulfo-2-naphthalcny1)azo]-8-hydroxy-3.6-disulfo-2-naphthalcny1)azo]-8-lydroxy-3.6-disulfo-2-naphthalcny1)azo]-8-hydroxy-3.6-disulfo 2-naphthalcny1)azo]-8-hydroxy-3.6-disulfo 2-naphthalcny1)azo]-8-hydroxy-3.6-disulfo 2-naphthalcny1)azo]-8-lydroxy-3.6-disulfo 2-naphthalcny1)azo]-8-lydroxy-3-lydroxy-

PAGE 1-A

PAGL 1-B

PAGE 1-C

ANSWER 6 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

366001 · 33 4 CAPLUS

PAGE 1-A

PAGE 1-B

PAGE 1-C

366001-29-8DP, exidized 366001-30-1DP, exidized 366001-32-3DP, exidized 366001-33-4DP, exidized 366001-33-4DP, exidized RL: IMF (Industrial manufacture): TCD (Technical or engineered material use): PREP (Preparation): USFS (Uses) (dye: production of reactive dis- and trisazo dyes)

L5 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2004 ACS on STH (Continued)

PAGE 1-A - CH2-- CH2-- OH

PAGE 1-8

366001-32-3 CAPLUS
Acetic acid. [[4-[[3-[[1-amino-7-[[(1.5-disulfo-2-naphthalenyl)azo]-8-hydroxy-3.6-disulfo-2-naphthalenyl]azo]-8-hydroxy-3.6-disulfo-2-naphthalenyl]azo]-8-hydroxy-3.6-disulfo-2-naphthalenyl]azo]-8-hydroxy-3.6-disulfo-2-naphthalenyl]azo]-4-sulfophenyl]emino]-6-[(carboxymethyl)thio]-1.3.5-triazio-2-yl]bmino]ethyl]-1 piperazinyl]-1.3.5-triazio-2-yl]bmino]ethyl]-1 (GA INDEX NAME)

PAGE 1-A

#### Page 27

ANSWER 6 OF 40 CAPIUS COPYRIGHT 2004 ACS on STM: (Continued) 366001-29-8 CAPLUS Acetic acid. [[4-[[3-[(aminocarbonyl)amino]-4-[(3.6.8-trisulfo-2-naphthalenyl)azo]phenyl jamino]-6-[3-[2-[[1-[[3-[(aminocarbonyl)amino]-1-[(3.6.8-trisulfo-2-naphthalenyl)azo]phenyl jamino]-6-[(Carbosyazethyl)thio]-13.5-triazin-2-yl jamino[ethyl]-1-piperazinyl]-1.3.5-triazin-2-yl jithio]-(901) (CA limpx yazo) (9CI) (CA INDEX MARE)

PAGE 1-B

366001-30-1 CAPLUS

CN

L5 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-C

RN CN

PAGE 1-A

PAGE 1-6

IT

220211-69-8 366001-31-2 RL: RCT (Reactant): RACT (Reactant or reagent) (Starting material: production of reactive dis- and trisazo dyes) 220211-69-8 CAPLUS

220211-69-8 CAPLUS
1.3.6-Haphthalenetrisulfonic acid. 7-[[2-[(aminocarbonyl)amino]-4-[[4-[4-[2-[[4-[[3-[(aminocarbonyl)amino]-4-[(3.6.8-trisulfo 2-naphthalenyl)azo]phenyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino[ethyl]-1-piperazinyl]-6-chloro-1.3.5-triazin-2-yl]amino[phenyl]azo] (9C1) (CA-NDEX\_NAME)

PAGE 1-A

PAGE 1-B

ANSWER 7 OF 40 CAPLUS COPYRIGHT 2004 ACS ON SIN 2001:472837 CAPLUS 135:78218

AN ON TI IN

195:78218
Reactive azo dyo mixtures and their use
Brennan. Colin: Patsch. Manfred
Dystar Textilfarben G.m.b.H. + Co. Doutschland K.-G.. Germany
PCI Int. Apple D. 25 pp.
CODEM: PIXXD2

Patent

EAR.	CMI	1																
PATENT NO.															ATE			
ΡI		2003										2000 -					0001	221
		2001										.uu	L1 1.7	120				
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												. RU.						
		R <sub>i</sub>										. TZ.						
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			BJ.	CF.	CG.	CI.	CM.	GA.	GN.	C₩.	M	. MR.	NE.	SII.	TĐ.	16		
	DŁ,	1996	2228			Al		2001	0628		OE :	1999-	1996	2228		15	9991	222
	BR	2000	0165	52		Α		2002	0017		BR 2	2000-	1655	2		2	0001	221
	ξþ	1255	789			A2		2002	1113		EP 3	-000	9852	35		2	0001	221
												IT.						
							FI.	RO.	Ж.	CY.	AL	. TR						
	JP	2003	5181	88		T2		2003	0603		JP :	2001-	5.172	25		2	1000	221
	ZA	2002	0049	09		Á		2003	0610		ZA :	2002-	4909			2	0020	619
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PRAI	DF	1000	-199	6222	R	A		1999	1222									
		2000																
O.C		1000				,,												

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1.5 ANSWER / OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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PAGE 1-B

ANSWER 8 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN 2000:117119 CAPLUS DN 132:167667 Reactive tetrakisazo dyes, their preparation and use Fbenezer, Warren James: Mynett, Donna Maria BASE A.-G.. Germany PCT Int. Appl.. 29 pp. CODEN: PIXXD2 SO ĐΤ Patient LA English FAN.CNT 1 PATENT NO. KIND DAIL APPLICATION NO. DATE A1 20000217 W0 1999-GB2447 19990726
W: BR, CN. IN. JP. KR. TR. US
RK: AT. BE, CH. CY, DE, DK, ES, FI, FR, GB, GR, IE, II, LU, MC, MI, PT, SE WO 2000003101 BR 9912628 20010502 BR 1999-12628 19990726 20010523 20030416 FP 1100847 Al Bl EP 1999-934987 19990726 EP 1100847 R: AT. BE. CH. DF. DK. ES. FR. GB. GR. IT. LL. LU. NL. SE. MC. PT. IE. FI TR 200100320 T2 20010621 TR 2001-200100320 JP 2002522587 12 20020723 JP 2000-563731 19990726 AT 237661 PT 1100847 20030515 20030731 AT 1999-934987 PT 1999-934987 19990726 19990726 ES 2197658 T3 20040101 ES 1999-931987 19990726 US 6359121 PRA1 GB 1998-16780 WO 1999-GB2447 В1 20020319 US 2001-744254 20010131 19980/31 19990726 MARPA1 132:167667

The dyes have the formula I [each R = H. SO3H; each X  $\rightarrow$  F. Cl. (un)substituted pyridinium; Y = IRR12NR2 (with 1 exception), IRR32S; R1-R3 =

L5 ANSWER 8 OF 40 CAPILIS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-C

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CMT 7 ALL CITATIONS AVAILABLE IN THE RE FORMAT

- AMSWER 8 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued) C1-4 alkyl. C1-4 aminoalkyl. C1-1 hydroxyalkyl. or RIR2 completes a heterocycle: Z = (un)substituted (5-12 cycloalkylene or C5-12 (hetero)arylene. ≥2 such groups linked Logether. (un)substituted (un)interrupted (by M. O. S. or such a cyclic group) C1-15 alkylene or C2-15 alkepylene] or are salts of such 1. Thus. II actd Na salt was compled with diazotized 2.1-4 PMCRACHDCCHOSQ34 and the product was roupled with diazotized 2.1-4 PMCRACHDCCHOSQ34 and the product was coupled with diazotized diazotized 2.1-4 PMCRACHDCHOSQ34 and the resulting dichlorotriazine deriv. was condensed 2.1 with EMPLICHEMBEC to give a 1. Amax 616 nm. which dyed control in a fast greenish navy shade.
  258516-26-69
- 256516-26-6P

  RL: SPH (Synthetic preparation): TEM (lechnical or engineered material use): PREP (Preparation): USES (Uses)
   (preparation of reactive tetrakisazo dyes)
  256516-26-6 CAPLUS
  1.5-Naphthalenedisultonic acid. 2-[[8-amino-7-[[5-[[4-[4-[2-[[4-[3 [[1-amino-7-[(1.5-disulfo-2-naphthaleny) Jazo]-8-hydroxy-3.6-disulfo-2-naphthaleny] Jazo]-8-hydroxy-3.6-disulfo-2-yl]amino]ethyl]-1-piperazinyl] 6-chloro-1,3.5-triazin-2-yl]amino]-2-sulfophenyl Jazo]-1-hydroxy-3.6-disulfo-2-naphthalenyl]azo]-, decasodium salt (9CI) (CA HDEX NAME) salt (901) (CA INDEX NAME)

PAGE 1-A H039 11035 S03l

PAGE 1-B

**0**10

ANSWER 9 OF 40 CAPEUS COPYRIGHT 2004 ACS on STN

1999:464283 CAPLUS 131:111412

Triazine antiviral compounds

Aremas, Jahme E.: Cload, Sharon L.: Fleming, Elizabeth S.: Xiang, Yi Bin Scriptgen Pharmaceuticals, Inc., USA

50 PCT Int. Appl., 194 pp.

CODEN: PIXXD2 Patent

ĐΤ

LΛ English

FAN.CHT 1 PATENT NO. KIND DATE APPLICATION NO. 9936410 A1 19990722 W0 1999-US945 19990113 W: CA, GD, HR, ID, IH, JP RW: AT, BE, CH, CY, DE, DK, FS, FJ, FR, GB, GR, JE, TT, LU, MC, NL, WO 9936410 PT. SE CA 2318362 CA 1999-2318362 EP 1999-902309 19990722 19990113 EP 1053230 A1 20001122 19990113 R: AT. BE. CH. DE. DX. ES. FR. GB. GR. IT. L1. IU. NL. SE. MZ. PT. LF. FI

JP 2002509140 T2 20020326 JP 2000-540126 19990113 PRA1 US 1998-6430 WO 1999-US945 19980113 19990113

MARPAT 131:111412

MARKYN 13:111412
Pharmaceutical formulations comprising 1.3.5-triazine derivs, are provided. The compds, and formulations of the invention exhibit a range of activities, including antiviral and antibiotic activities, and the formulations may be used, alone or in combination, as a method of treating a patient in need of antiviral and/or antibiotic therapy. The triazine derivs, bind to and inhibit functional nucleic acids, and hence, have broad applicability in the treatment of conditions associated with DNA and RMA viruses.

232937-54-1

RI: BAC (Biological activity or effector, except adverse): BSU (Biological study, unclassified): THU (Therapeutic use): BIOL (Biological study): USES (Uses)

(triazine antiviral compds.) 232937-54 1 CAPLUS 1.3.5-Triazine-2.4.6-triamine, M\*-[2-F4-[4-(dimethylamino)-6-[[3-Claim 12.10 t | Imming | 1.12 t |
(Chil luoranthy) phony) | jaming | 1.12 t | 1.2 t | 1.2 t | 1.2 t |
(H.N-dimethyl-N''-[3-(trifluoromethyl) phonyl] - (901) | (CA INDEX NAME)

PAGE 1-A H3C 11H-CH2-CH2-11H-CH2-11H-CH2-CH2-11H-CH2-11H-CH2-CH2-11H-CH2-11H-CH2-CH2-11H-CH2-CH2-11H-CH2-CH2-11H-CH2-CH2-11H-CH2-11H-CH2-CH2-11H-CH2-CH2-11H-CH2-11H-CH2-CH2-11H-CH2-11H-CH2-CH2-11H-CH

PAGE 1-B

(Continued)

~CF3

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CHI 19 ALL CITATIONS AVAILABLE IN THE RE FORMAT

LS ANSWER 10 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

Reactive dyes having at least one halobenzene nucleus linked to a chromophoric group via an amino linkage and addnl. containing a second reactive group were prepared E.g., fluorodinitrophenyl-substituted azo dye I was prepared The reactive dyes were used to dye textiles and may be used to prepare inks.

225651-79-6P
RI: IMF (Industrial manufacture): SPN (Synthetic preparation): TEN (Technical or engineered material use): PREP (Preparation): USES (Uses) (golden yellox dye; preparation of reactive dyes containing a halobenzene nucleus)

(colden yellow dyo: proparation or reactive dyes consuming to nucleus) 275651-79-6 CAPLUS 1.3.6-Haphthalenetrisulfonic acid. 7-[[2-[[4-chloro-6-[4-[2-[[4-chloro-6-[5-fluoro-2.4-dinitrophenyl)amino]-2-[(3.6.8-trisulfo-2-naphthalenyl)azo]phenyl]amino]-1.3.5-triazin-2-yl]amino]ethyl]-1-piperazinyl]-1.3.5-triazin-2-yl]amino]-4-[(5-fluoro-2.4-dinitrophenyl)amino]phenyl]azo]- (901) (CA\_HUEX\_HAME)

PAGE 1-A

5	ANSWER TO OF 40 CAP	PLUS COPYRIGHT 200:	LACS on STN						
	1999:355837 CAPLUS								
III	131:6563								
1	Preparation of reactive dyes containing a halobenzene nucleus								
N	Faylor, John Anthony: Rabjohns, Michael Alan								
Λ	BASE Aktiengesellschaft Germany								
0	PCT Int. Appl., 121	pp.							
	CODEM: PIXXD2								
T	Patent								
A.	English								
Ail.	CHT 1								
			APPLICATION NO.	DATE					
·Ι			WO 1998-G93406	19981112					
	WO 9927019								
	W: BR. CN. 10.								
		CY. DE. DK. ES. FI	. FR. GB. GR. IE. If. LI	J. MC. NE.					
	PT. SE								
			EP 1998-952935	19981112					
	EP 1029002								
	R: CH. DE. ES.								
	JP 2001524570	T2 20011204	JP 2000-522167						
	EP 1333062	A1 20030806	FP 2003 7521	19981112					
	R: CH. DE. ES.	GB. IT. LI. PT							
	CI! 1121/456	B 20030917	CN 1998-811133	19981112					
	TW 508365	B 20021101	TW 1998-87121801 US 2000-554325	19981229					
	US 6399751	B1 20020604	CN 1998-811133 TW 1998-87121801 US 2000-554325 US 2002-17279	20000724					
	US 2003191293	A1 20031009	US 2002-117279	20020408					
	02 5003158332	A1 20030321	US 2002-158879	20020603					
PRAI	GB 1997-23924								
	EP 1998-952935								
	WO 1998-GB3406								
	US 2000-554325	A3 20000724							
	MARPAT 131:6563								
1.5									

15 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

ANSWER 11 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1999:312682 CAPLUS

AN

130:353796

Preparation of ionic compounds by removing unnecessary ions by dialysis and ink-jet inks containing the ionic compounds

Shincizo Wataru

Mitsubishi Chemical Industries Etd., Japan Jpn. Kokai Tokkyo Koho, 8 pp.

SO

CODEN: JKXXAF

LA Japanese

FAN CRT 1 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11130699 PRAI JP 1997-290668 GI	A2	19990518 19971023	JP 1997-290668	199/1023

Tonic compds, having tonic water soluble groups, used as dyes, agrochems... Jonic compds, having fonic water soluble groups, used as dyes, agrochems, drugs, detergents, food additives, etc., are prepared by adding countraines to aqueous solns, or aqueous supprensions of the fonic compds, and dialyzing the solns, or suspensions using a porous separating materials to remove unnecessary ones and exchange the counter ions. Also claimed are ink.jet inks containing dyes prepared as described above. A magenia dye I (prepared from H acid. cyanur chloride, 1.4-bisaminopropylpiperazine, and 2-aminobenzoro acid) was dissolved in H2O and the aqueous solution was dialyzed using a reverse-osmosis membrane at 40° while supplying H2O for 2.5 h. After addition of H2O and NH4Cl the dialysis was continued for 1 h while

15 ANSWER 11 OF 40 CAPLUS COPYRIGHT 2001 ACS on STN (Continued)

Ma

AMSWER II UP 40 CAPLUS COPYRIGHT 2004 ACS on STB (Continued) supplying H20 and further for 1 h without water supply. The above process was repeated 2 times to give an aq. soln. of 1. in which 29% of SUBL and COBH are exchanged with HHI. A mink-jet ink conty. the dye soln. detaylene glycol, and iso-Ph alc. was also manufd. 22529-68-9P

225239-68-9P
RL: NP: (Industrial manufacture): SPH (Synthetic preparation): TEN
(Icchnical or engineered material use): PREP (Preparation): USES (USES)
(preparation of ionic dyes and exchange of counterion by removing
unnecessary ions by dialysis in the presence of wanted counterions, and
ink jct inks containing the dyes)
225239-68-9 CAPLUS
Remodic and 2 2 11 Language manufactures 2 2 2002

Z25.239-06-9 CAPLUS

Benzoic acid. 2.2°[1.4-piperazinediylbis[3.1-propanediyl mino(1.6-dihydro-6-090-1.3.5-triazine-4.2-diyl)imino(8-hydroxy-3.6-disulfo-1.7-naphthalenediyl)azo]]bis-. hexaamtoonium salt (9CI) (CA INDEX NAME)

●5 NH3

218281-61-9P RL: PNU (Preparation, unclassified); RET (Reactant): PREP (Preparation):

RACT (Reactant or reagent) (preparation of ionic dyes and exchange of counterion by removing unnecessary ions by dialysis in the presence of wanted counterions, and ink-jet inks containing the dyes)

PRESENTED 19 CAPLUS
BEHZUIC acid, 2.2°-[1.4-piperazinediylbis[3.1 propanediylimino(6 hydroxy-1.3.5 triazine 4.2 diyl)mino(6-hydroxy-3.6-disolfo-1.7-haphthalemediyl)acollbis-, hexasodium salt (901) (CA INDEX NAME)

ANSWER 12 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1999:96317 CAPLUS

NO TT Reactive dyes containing a piperazine residue, their preparation and use

Ebenezer, Warren James; Mynett, Donna Maria BASF A.-G., Germany PCT Int. Appl., 59 pp.

50 CODEN: PIXXD2

Patent

English

FAN.CHT 1 PATENT NO DATE APPLICATION NO. DATE KIND 19990204 9905224 A1 19990704 W0 1998-GB2162 19990720 W: BR. CH. ID. JP. KR. TR. US RW: AT. BE. CH. CY. DE. DK. ES. FI. FR. GB. GR. IF, IT. IU. MC. NL. W0 9905224 PT. SE EP 998531 EP 998531 20000510 EP 1998-935169 19980720 A1 B1 20020306 GB, IT, LI, PT A 20000801 12 20000921 CH. DE. ES. BR 1998-11035 TR 2000-200000227 BR 9811035 19980720 19980720 IR 200000227 JP 2001510875 T2 20010807 JP 2000-504205 19980720 19980720 19980720 19980720 19980720 PI 998531 ES 2173604 20020830 PT 1998-935169 ES 1998-935169 1 T3 CN 1998-807524 TW 1998-87112140 US 2000-462500 CN 1102947 TW 568940 20030312 20010619 19980724 20000124 US 6248871 В1 PRAT GR 1997-15830 19970725 WO 1998-GB2162 MARPAT 130:154986 19980720

The dyes have the formula I [D1, D2 = azo chromophoric group; R1-k4 H. (un)substituted alky1; each R5 = alky1; X1, X2 = labile atca or group; a, b = 1-5; x, y = 0, 1; (x + y)  $\geq$  1; z = 0-4]. They can be prepared by reacting a piperazine derivative with resp, equimolar quantities of 2 triazine ring-containing reactive azo dyes or with 2 mol of a single reactive azo dye. For coloration of a substrate the dyes can be applied at pH >7 by. for example, exhaust dyeing, padding, or printing. Thus, an aqueous solution of 0.021 mol 7-[14] dichlorotriazinylamino)-2-unerdoptenylazol-1.3.6-naphthalenetrisulfonic acid was added over 15 min to an aqueous solution of 0.01 mol 1-(2-aminothyl)piperazine at room temperature and kept overnight to give a

ANSWER 12 OF 40 CAPLUS COPYRIGHT 2001 ACS on STN I with  $\lambda \text{max}$  426 nm.

220211-73-4P

RL: IMF (Industrial manufacture): TEM (Technical or engineered material use): PREP (Preparation): USES (Uses)

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PAGE 1-B

PAGE 1-C

IT 220211-70-1P 220211-71-2P 220211-72-3P

L5 ANSWER 12 OF 40 CAPILUS COPYRIGHT 2004 ACS on SHI (Continued)

$$\label{eq:continuous} \begin{split} 220211-72-3 \quad &\text{CAPLUS} \\ 1.5-\text{Maphthalenedisulfonc} \quad &\text{acid.} \quad 2-\lceil [8-\lceil [4-\text{chloro-6-}[4-\lceil 2-\lceil [4-\text{chloro-6-}[7-\lceil [4-\text{chloro-6-}]]])])} \\ 1.5-\text{Maphthalenedisulfonc} \quad &\text{Assign of the properties of the properti$$

220211-69-8P
RL: DN (industrial manufacture): TEM (Technical or engineered material use): PREP (Preparation): USES (USES)
(yellow: reactive aco dyes containing a piperazine residue)
220211-69-8 CARTIS
1.3.6-Kaphthalenetrisulfonic acid. 7-[[7-[(astinocarbonyl)amino]-4-[[4-[4-[2-[4-[3-[(astinocarbonyl)amino]-4-(3-6.8-trisulfo-2-naphthalenyl)azo]phenyl]amino]-6-chloro-1.3.5-triazin-2-yl]amino]ethyl]-1-

## Page 32

L5 ANSHER 12 OF 40 (APLUS COPYRIGHT 2004 ACS on STA (Continued) RL: IMF (Industrial manufacture): TDM (Technical or engineered material use): PREP (Preparation): USES (Uses) (red: reactive azo dyes contg. a piperazine residue)

(reg: reactive azo dyes contg. a pipcrazine residue) 220211-70-1 CAPLUS 2.7-Naphthalenedisulfonic acid. 5-[[4-chloro-6-[4-[2-[4]-chloro-6-[8-hydroxy-3.6-disulfo-7-([2-sulfophenylbar]-1-naphthalenyl]anino]-1,3.5-triazin-2-yl]amino[eyl]-1-pipcrazinyl]-1.3.5-triazin-2-yl]amino[-4-hydroxy-3-[(2-sulfophenyl)azo]- (9Cl) (CA INDEX NAME)

ANSWER 12 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN L5 (Continued) piperazinyl]-6-chloro-1.3.5-triazin-2-yl]amino]phenyl]azo]- (9CI) (CA INDEX MAME)

PAGE 1-A

PAGE 1-B

THERE ARE 4 CITED REFFRENCES AVAILABLE FOR THIS RECORD ALL CHATICHS AVAILABLE IN THE RE FORMAT RE.CHT 4

ANSWER 13 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

1998:806502 CAPLUS 130:73879

AN DN

Printing method utilizing magenta ink H

Printing include utilizing magenta ink Katsuragi, Takashi: Teraoka, Hisashi: Yawamoto, Mayumi Canon K. K., Japan Jpn. Kokai Tokkyo Koho, 21 pp. CODFU: JEXXAF Patent

PA 50

Japanese

FAN.CHT 1 PATENT NO. KIRD DATE APPLICATION NO. DATE 19981215 19980327 PI JP 10329418 PRAI JP 1997-96364 A2 JP 1998-80747 19970401

JP 1997-96304 The printing method utilizes a specific anionic magenta ink for producing a magenta image which satisfics specified CIA Lab relations. The method is especially suitable for the ink-jet printing. The printed image shows excellent water-resistance and bright magenta color.

RE: TEM (Technical or engineered material use): USES (Uses)
(in magenta ink-jet printing ink)

Timegenic micycle princip in/2 218281-61-9 CAPLUS Benzoic acid. 2.2'-[1.4-piperazinediylbis[3.1-propanediylimino(6-hydroxy-1.3.5-triazine-4.2-diyl)imino(8 hydroxy-3.6-disulfo-1.7-naphthalenediyl)azo]]bis-, hexasodium salt (901) (CA INDEX NAME)

L5 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A

ARSWER 14 0F 40 CAPLUS COPYRIGHT 2004 ACS on SIN 1998:697319 CAPLUS 129:277343

DN

ice:icrosto Bis[[2-[(indanylazo)sulfonaphthylamino]triazin-l-yljamino] substituted derivatives, free of fiber-reactive groups, as colorants for ink-jet inks Tallant, Neil Antony: Gregory, Peter: Wight, Paul

PA SO

Zeneca Limited, UK Brit, UK Pat, Appl., 34 pp. CODEN: BAXXDH

Patent English DT I A

FAN.	CHT 1				
	PATENT NO.	KIMD	DATE	APPLICATION NO.	DATL
PΙ	GB 231/184	A1	19980318	GR 1997 18343	19970901
	GB 2317184	B2	20000816		
PRAI	GB 1996-18976	Α	19960911		
	GB 1996-18994	A	19960911		

[68 1996-18976 A 1996091]
MARPAT 129:27/343
Disazo dwes containing 2 sulfoindan, triazinyltriamino, and 3-sulfo-4-naphthol groups are disclosed. The dyes have good wet and light fastness when employed in aqueous jet-printing inks. Inus. 5-aminoindan-6-sulfont acid was disazotized and coupled with the till product of cyanuric chloride and 1-amino-8-naphthol-3.6-disulfonic acid and the resulting dichlorotriazinyl azo dye was condensed twice with 1.4-bis(3-aminopropyl)piperazine to give a disazo dye which was incorporated into a jet-printing ink base.
213972-61-3P 213972-66-8P 213972-63-5P
RL: RIF (Industrial manufacture): TEM (Technical or engineered material use): PREP (Preparation): USES (USES)
(dye: preparation of disazo dyes for aqueous jet-printing inks)
213972-61-3 CAPLUS
2.7-Haphthalenedisulfonic acid. 4.4\*-(1.4-piperazinediylbis[3.1-propanediylisinof6-f[3-f4-(3-aminopropyl)-1-piperazinvi]propyl]amino]
1.3.5-triazine 4.2-diyl]imino]]bis[6-f(2.3-dihydro-6-sulfo-III-inden-5-yl)azo]-5-hydroxy-, hexasodium salt (9Cl) (CA INDEX NAME)

L5 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-B

2139/2-62-4 CAPLUS 2.7-Naphthalenedisulfonic acid. 4.4'-[1.4-piperazinediylbis[3.1-propaned]ylimino[6-[(2-hydroxyethyl)amino]-1.3.5-triazine-4.2 diyllpinen[0]bis[6-[(2.3-dibydro-6-sulfo-H-inden-5-yl)azo]-5-hydroxy-hexasodium salt (9C1) (CA BOUEX NAME)

110-CH2-

●5 tla

LS ANSWER 14 OF 40 CAPLUS COPYRIGHT 2004 ACS on STH

PAGE 1-B

213972-63-5 CAPLUS 2.7-Haphthalmedisulfonic acid. 4.4%-[1.4-piperazinediylbis[3.1-proparediyl humol6-[[2-(1-piperaziny)]ethyl ]amino] 1.3.5-triazine-4.2-diyl ]imino] [bis[6-[(2-3-dithylon-6-sulfo-Hi-inden-5-yl)azo]-5-hydroxy-hexasorium salt (9C1) (CA INDEX NAME)

PAGE 1-A

LS ANSWER 14 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

●5 Na

PAGE 1-8

213972-66-8 CAPLUS
2.7-Haphthalemedisulfonic actd. 4.4'-[1.4-piperazinediylbis[3.1-propagedy] hainof6-amino-1.3.5-triazine-1.2-diyl)-maino]Bis[6-[(2.3-diydro-6-sulfo-1H-inden-5-yl)azo]-5-hydroxy . hexasodium salt (9CI) (CA INDEX NAME)

L5 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

213972-65-7 CAPLUS

ZLSYLZ-OS-7 LAPLIN Z.7-Naphthalenedisulfonic acid. 4.4'-[1.4-piperazinediylbis[3.1-propanediyltarino[6 [[2 (dfmethylamino]cthyl]amino]-1.3.5-triazine-1.2-diyl]imino]]bis[6-[(2.3-dihydro-6-sulfo-IH-inden-5-yl)azo] 5 hydroxy . hepasodium salt (901) (CA INDEX MAME)

L5 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

●5 Na

213972-71-5 CAPLUS Benzoic acid. 4.4'-[1.4-piperazinediy|bis[3.1 propanediy|imino[6-[[7-[(2.3-dibydro-6-su)fo-1H-inden-5-y]]bazo]-8-hydroxy-3.6-disulfo-1-naphthalenyl[baino]-1.5-triazine-4.2 diyl[]imino]]bis[2-hydroxy-.hexasodium salt (9Cl) (CA\_INDEX\_NAME)

PAGE 1-A

PAGE 1-B

L5 ANSWER 15 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

NISWER 15 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

1998:674915 CAPLUS 130:4974

Ink-jet printing inks with good color production on plain paper

INK-Jet printing this with good color products Sano, Hideer Yamada, Hasahiro: Hishaura, Toru Hitsubishi Chcaical Industries Etd., Japan Jpn. Kokai Tokkyo Koho, 12 pp. COSEH: JKXXAF Patent

50

Japanese

FAILCHI 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI JP 10279858	A2	19981020	JP 1997 83/28	19970402	
PRAI JP 1997-83728		19970402			

MARPAT 130:4974
The firks giving light- and water-resistant prints on paper are prepared in aqueous medium and contain p. (AlH:H)C6H2RIR2HHZTY1Z2HK6H2R3R4(H:HA2)-p [Al 2 coptionally SO3H-substituted) Ph. naphthyl groups: R1-4 = H. (optionally substituted) C1-4 alk(oxy)! JHCORS (R5 = HH2 C1-4 alk) group). halogen: Ol group: (1.2 = (optionally mine- or ether group-containing) triazinediyl groups: Y1 = HH(CH2)aXCH2)b(HH)c (X = 1.4-piperazinediyl group). halogen: 1.4-piperazinediyl groups: Physicazinediyl or specified amino linking groups: a. b = 0-6: c = 0.
1] and m-(B1H:H)C6H2R6R7HH(Z3Y2)n274HKCH2R8R9(H:M2)-m [B1.2 - (optionally substituted) 6-hydroxy-2-pyridon 5-yl or 5-hydroxy-1-phenyl-pyrazol 4-yl groups: R5 = H. SO3H, CO0H: 23.4 = (optionally anine- or ether group-containing) triazinediyl groups: Y2 = Y1: n = 0. 1] as colorants.
215871-61-7
R1. PRP (Properties): TEM (Technical or engineered material use): USES

RL: PRP (Properties): TEM (Technical or engineered material use): USES

RL: PRP (Properties): ICH Credition. G. Co., (USes)
(Ink-jet printing inks with good color production on plain paper)
21587)-61-7 CAPLUS
1.5-Maphthalemedisulfonic acid. 3.3'-[1.4-piperazinediylbis[3.1-propanediylmino(1.6 dithydro 6 oxo 1.3.5 triazine-4.2-diyl)imino(2-methyl-4.1-phenyleme)azo]]bis- (GCI INDEX NAME)

PAGE 1-A

ANSWER 16 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1997:731459 CAPLUS

1997/34499 CAPLUS 128:66511 Color image formation by ink-jet printing Sano. Hideo: Takimoto. Hiroshi Hitsubishi Chemical Industries Ltd., Japan Jpn. Kokai Tokkyo Koho. 19 pp. CODEN: UKXXAF

Patent

T0 A 1 Japanese

PATENT NO.	KEND	DATE	APPLICATION NO.	DATE
PI JP 09286167 PRAI JP 1996-34/95	A2	19971104 19960222	JP 1996 338200	1996121

In forming a color image by jetting aqueous magenta, yellow and cyan inks, the magenta ink contains 21 free acid type dye 1 (R1-6 - C1.9 alkyl. C1-9 alkyox, halo, H. hydroxy, carbamoyl, sulfamoyl, amino, nitro, sulfonic acid ester: C1-9 alkylsulfonyl, carboxyl, carboxylic acid ester: m.n. 0.21 XL, X2 = 00H/ (R/ = H, C1-8 alkyl, C2-3 alkenyl, aryl, analkyl, cyclohexyl, H-containing heterocyclyl): Y specified N-containing divalent group), and other color inks each contains a specified dye. The image formed by the invention method shows superior resistance to the charges, light, and water, and has sharp tone and good image d.

179868 - 96 - 3

RI- TEM (Technical or engineered material use): USES (Uses) (contained in magenta ink for color image formation) 179868-96-3 CAPLUS

 ${\tt Benzoic\ acid.\ 2.2'-[1.4-piperazine diylbis [3.1-propane diylimino (1.6-dihydro-larger acid.)]}$ 

lla

L5 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2 A

■8 13H3

19524-45-5P

KL: IMF (Industrial manufacture): TFM (Technical or engineered material use): PREP (Preparation): USES (Uses)

(magenta dve: preparation of disazo dyes for aqueous jet-printing inks)
195245-45-5 CAPLUS
1.3-Benzemedicarboxylic acid. 5.5'-[1.4-piperazinediylbis[3.1-proparadiyl imino[6-L[3 [4 (aminomethyl)-1-piperazinyl ]propyl ]amino[-1.3.5-triazine-4, 2-diyl ]imino[8-hydroxy-3.6-disulfo-1.7-naphthalenediyl)azo]]bis1961 (CRI LIPEY NAME) (9C1) (CA INDEX NAME)

# Page 36

ANSWER 17 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

1997:638373 CAPLUS 127:235674

L5 AH DH TI 127:50074 Disazo dyes based on two linked 2-(7-(carboxyphenylazo)-8-hydroxy-3.6 disulfonaphthylamino)-4-substituted triazin-6-yl units and their use in

Gregory, Peter: Kenyon, Ronald Wynford: Wight, Paul

PA SO

Zeneca Limited, UK Brit. UK Pat. Appl., 16 pp. CCDEN: BAXXDU

CCDEN: E DT Patent LA English FAN.CNT 1

MI.UG 1								
	PATENT NO.	KIRD	DATE	APPLICATION NO.	DATE			
1	GB 2308377	ΑI	19970625	GB 1996-24688	19961127			
RAI	GB 1995-25858		19951219					

MARPAT 127:235674

MRRAT 127:23674
The disazo compds. Alk:MJXH(R1)JH(R2)JXH:MAZ (A1. A2 = optionally substituted carboxyphenyl: J = B-hydroxy-3.6-disulfonaphthaleme connected by 7- and 1-amino linkages: L = organic linking group: R1. R2 = H. optionally substituted hydrocarbyl: R1R2 tagether with L may form a 5- or 6-membered ring with HIX = 2-4-triazmedlyl containing O. N. or S substituent) and their salts are suitable dyes for aqueous jet-printing inks for paper. textile, or projection shide substrates. Thus, the dichlorotriazinyl compound obtained by coupling disazotized 5-aminoisophthalic acid with dichlorotriazinyl H acid was condensed (2:1) with 1.4-bis(3-aminopropyl)piperazine (1) and the resulting bis(monuchlorotriazinylazo) product was heated (1:2) with more I to provide a disazo dye which could be incorporated into an aqueous jet-printing ink and applied on plain paper, giving bright magenta shades having good water and light fastness. AB

195245-46-6P RL: IMF (Industrial manufacture): RCT (Reactant): PREP (Preparation): RACI

RR: TRY (INDUSTRIAL MAINTACTURE): RR: (Reactant): PREP (Preparation): RRC! (Reactant or reagent) (intermediate: preparation of disazo dyes for aqueous jet-printing inks) 195245-46-6 (APLUS 1.3-Benzenedicarboxylic acid. 5.5'-[1.4-piperazincdiylbisl.3.1-propanediylbino(6-chloro-1.3.5-triazine-4.2-diyl)maino(8-hydroxy-3.6-disulfo-1.7-naphthalenediyl)azo]bis-. octaannonium salt (9CI) (CA INDEX NAME)

1.5 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued)

PAGE 1 A

US ANSWER 18 OF 40 CAPLUS COPYRIGHT 2004 ACS ON STN

(Continued)

PAGE 1-A

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PAGE 2-A

ATSMER 18 OF 40 CAPLUS COPYRIGHT 2001 ACS on SIN
1997:636822 CAPLUS
127:235673
Disazo dyes and their use in inks based on two linked 7-[7-(2-sulfophenylazo)-8-hydroxy-3.6-disulfonaphthylamino]-4-substituted-triazin-6-yl units
Renyon, Ronald Wunfuwl, Gassac Cap.

Kenyon, Ronald Wynford: Gregory, Peter: Wight, Paul

Zeneca Limited, UK Brit. UK Pat. Appl., 17 pp. CODEN: BAXXDU

DT Patent LA English

PAH.	PATENT NO.	KIND	DATE	APPLICATION NO.	DATL
PΙ	G8 2308379	Al	19970625	GB 1995-24690	19961127
	GB 2308379	B2	20000329		
	US 5773593	Α	19980630	US 1996-769701	19961218
	JP 09217016	A2	19970819	JP 1996-339537	19961219
PRA	GB 1995 25882	Α	19951219		

- IGB 1995-25882 A 19951219

  MARPAT 127:235673

  The dyes ALN:INDWIREDINICR2DXURIMAZ (A1, A2 = optionally substituted 2-sulfophenyl: J = 8-hydroxy-3.6-disulfonaphthalene connected by 7- and 1-amino Linkages: L = piperazinediyl-containing linking group: R1, R2 = H. optionally substituted hydrocarbyl: RIRZ together with L may form a 5- or 6 membered ring with R: X = 2.4-triazinedyl containing 0. N. or 5 substituted) or their salts are suitable for aqueous jet-printing inks for paper, textile, or projection slide substrates. Hhus, orthanilic actidil acid was prepared and condensed with cyanuric acid to give a dichlorotriazinyl compound to which was added 1.4-bis(3-aminopropyl)piperazine. The resulting bis(monochlorotriazinylazo) product was condensed with 1-(2-aminochyl)piperazine to provide a disazo dye which could be incorporated into an aqueous jet-printing ink and applied on plain paper. giving bright magenta shades having good water and light fastness. tastness

fastness.
195379-30-7P
RL: IHF (Industrial manufacture): TEM (Technical or engineered material use): PREP (Preparation): USES (USES)
(Orceparation or disazo dyes for aqueous jet-printing inks)
195379-30-7 CAPLUS
2.7 Naphthalenedisulfonic acid. 4.4:-[1.4-piperazinediylbis[3.1-propanediyl mino[6-[[2-(1-piperazinyl)ethy]]amino]-1.3.5-triazinc-4.2-diyl]imino]bis[5 hydroxy-6-[(2-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

1.5 ANSWER 18 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

- ANSWER 19 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1996:494110 CAPLUS
- AN
- 125:145333
- II II 125:145333
  Jet-printing inks containing triazine group-containing disazo acid dyes
  Takimoto, Niroshi: Sano, Hidro: Yamada, Masahiro
  Mitsubishi Chemical Corporation, Japan
  Eur. Pat. Appl. 23 pp.
  CODFN: EPXXDN

- OT Patent
- English

FAN.	CRI 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	EP 717089	A1	19960619	EP 1995-119552	19951212
	EP 717089	В1	19990324		
	R: DE. GB				
	JP 08311375	A2	19961126	JP 1995-120060	19950518
	JP 3396998	B2	20030414		
	JP 08218021	A2	19960327	JP 1995-320290	19951208
	JP 3384218	B2	20030310		
	US 5609673	Α	19970311	US 1995 571179	19951212
PRAI	JP 1994-307708	Α	19941212		
	JP 1995-120060	Α	19950518		
GS	MARPAT 125:145333				
G1					

- Storage-stable magenta jet-printing inks that provide images with high d. and good light and water resistance and color tone contain dyes I [R1-6 (substituted) Cl-9 alky), [L1-9 alkoys, halo, H. OH. (substituted) carbamoyl, substituted) sulfamoyl, (substituted) sulfamoyl, (substituted) sulfamoyl, (substituted) sulfamoyl, sulfamoyl cester group, CO2H, or carboxylate ester: X1, X2 = OR7, R7  $^{\circ}$  H.
- L5 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN (Continued)

PAGE 1-B

- 179869-01-3 CAPLUS
  2.7 Naphthalonodisulfonic edd. 4.4'-[1.4-piperazinediylbis[3.1-propered yl imino[6-(cotyloxy)-1.3.5-trlazine-4.2-diyl]imino]]bis[6-[(5-chloro-4.mixhyl-2-sulfog/enyl)azo]-5-hydroxy-. compd. with rethanamine (1:6) (9C1) (CA INDEX MAME)
  - CM 1

  - CRN 179869-00-2 CMF C66 #82 C12 #16 022 S6

- 15 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2001 ACS on STN (Continued) (substituted) C1-8 alkyl. (substituted) C2-3 alkonyl. (substituted) analkyl. (substituted) cyclohexyl. or (substituted) nitrogenous heterocyclic group. 7 = nitrogenous heterocyclic group-contg. divalent group. M = cation].

  17 179868-96-3 179868-98-5 179869-01-3 RL: PRP (Properties): TEN (Technical or engineered material use): USES (Mess)

- RE: PRE (Properties). In Constitution of Section 1975 (USes) (jet printing inks containing triazine group-containing disazo acid dyes) 179868-96-3 CAPLUS

  Benoric acid. 2.2'-[1.4-piperazinediylbis[3.1-propanediylimino(i.6-dihydro-6-oxo-1.3.5-triazine-1.2-diyl)imino(8-hydroxy-3.6-disulfo-1.7-naphthalenediyl)azo]]bis . tetrasodium salt (9CI) (CA IRDEX NAME)

•1 Na

- 179868 98-5 CAPLUS
  1.4-Benzemedicarboxylic acid. 2.2'-[1.4-piperazinediylhis[3.1-propanediylimino(6 hydroxy-1.3.5-triazine-4.2-diyl) manno(8-hydroxy-3.6-disulfo-1.7-naphthalenediylbazo]]bis-. tetraammonium salt (9C1) (CA INDEX RN CN

LS ANSWER 19 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-B

~() -(CH<sub>2</sub>)/−Ke

CH 2

CRN 74-89-5 CMF C H5 N

H3C-NH2

ANSWER 20 OF 40 CAPLUS COPYRIGHT 2004 ACS on STIL

1996:171898 CAPLUS 124:204938

L5 AN DN TI Anionic acid azo direct dyes, their preparation, their mixtures, and their Anionic acto azo direct ouse Lauk. Urs Ciba-Geigy A.-G., Switz, Eur. Pat. Appl., 71 pp. CODER: EPXXUW

PA SO

ÐТ Patent

PATERI NO. KLINO DATE APPLICATION NO. DATE  PI EP 6935:38 A2 19960124 EP 1995-810387 19950612 EP 6935:38 A3 19960605 EP 6935:38 B1 20010822 R: BE, CH, DE, ES, FR, GB, GR, IT, LI, PT  IS 5631352 A 19970520 IS 1995-810387 19950612 ES 2161817 T3 20011216 ES 1995-810387 19950612 EP 1 6935:38 T 20020130 PT 1995-810387 19950612 EP 1 6935:38 T 20020130 PT 1995-10285 19950612 EP 1 6935:40 A2 19960109 J 1995-107865 19950612 CH 1133323 A 19961016 CH 1995-107363 19950619 CH 1066178 B 20010523 ER 9902861 A 1996004 BR 1995-2861 19950620 GR 3036651 T3 20011231 GR 2001-01509 20010918 EP ALC H 1941-1952 A 19940670	FAN.	CHT 1				
EP 693538 A3 19960605 EP 693538 B1 20010822 R: BE. CH. DE. ES. FR. 68. 6R. 1T. LI. PT US 5631352 A 19970520 US 1995 460174 19950612 ES 2161817 T3 20011216 CS 1995-810397 19950612 EP 693538 T 20020130 PT 1995 810387 19950612 EP 0803169 A2 19960109 JP 1995-146285 19950613 UR 1333223 A 19961016 CR 1995 107363 19950613 CR 1066178 B 20010523 ER 9502861 A 19960604 BR 1995 2861 19950620 ER 3036651 T3 20011231 GR 2001-401509 20010918		PATERT NO.	K.IAD	DATE	APPLICATION NO.	DATE
EP 693538 A3 19960605 EP 693538 B1 20010822 R: BE. CH. DE. ES. FR. 68. 6R. 1T. LI. PT US 5631352 A 19970520 US 1995 460174 19950612 ES 2161817 T3 20011216 CS 1995-810397 19950612 EP 693538 T 20020130 PT 1995 810387 19950612 EP 0803169 A2 19960109 JP 1995-146285 19950613 UR 1333223 A 19961016 CR 1995 107363 19950613 CR 1066178 B 20010523 ER 9502861 A 19960604 BR 1995 2861 19950620 ER 3036651 T3 20011231 GR 2001-401509 20010918						
EP 693538 B1 20010822 R: BE, CH, DE, ES, FR, GB, GR, IT, LI, PT  185 631352 A 1970620 IIS 1995 460174 19950602 ES 2161847 T3 20011216 ES 1995-810387 19950612 PI 693538 T 20020130 PT 1995 810387 19950612 QJ 68000169 A2 1996109 JP 1995-146285 19950613 CM 1133323 A 19961016 CR 1995 107363 19950619 GH 1066178 B 20010523 BR 9502861 A 19960604 BR 1995-2861 19950620 GR 3036651 T3 20011231 GR 2001-401509 20010918	Ьi	EP 693538	A2	19960124	EP 1995-810387	19950612
R: BE, CH, DE, ES, FR, GB, GR, IT, LI, PT  155 5631352 A 19970507 US 1995 460174 19950602  ES 2161817 T3 20011216 ES 1995-810397 19950612  PI 693538 T 20021030 PT 1995 810387 19950612  JP 08003169 A2 19960109 JP 1995-146285 19950613  JM 1133323 A 19961016 Ct 1995 107363 19950619  GH 1066178 B 20010523  BR 9502861 A 19960604 BR 1995-2861 19950620  GR 3036651 T3 20011231 GR 2001-101509 20010918		EP 693538	A3	19960605		
US 5631352 A 19970520 US 1995 460174 19950602 ES 2161817 T3 20011216 CS 1995-810387 19950612 EI 693538 T 20020130 PT 1995 810387 19950612 JP 08003169 A2 19960109 JP 1995-146285 19950613 GM 1133323 A 19961016 CH 1995 107363 19950613 GH 1066178 B 20010523 GH 9502861 A 19960694 BR 1995 2861 19950620 GR 3036651 T3 20011231 GR 2001-401509 20010918		EP 693538	B1	20010822		
ES 2161817 T3 20011216 CS 1995-810387 19950612 P1 693538 T 20020130 P1 1995 810387 19950612 P1 693538 T 20020130 P1 1995 140285 19950612 P1 693513 P1 69350619 P1		R: BE, CH. DE.	ES. FR	. GB. GR. 1	IT. LI. PT	
P1 693538 T 20020130 PT 1995 810387 19950612 P7 08002169 A2 19960109 Jr 1995-146285 19950613 (M 1133323 A 19961016 CN 1995 107363 19950619 CN 1066178 B 20010523 BR 9502861 A 19960604 BR 1995 2861 19950620 GR 3036651 T3 20011231 GR 2001-101509 20010918		US 5631352	A	19970520	US 1995 460174	19950602
JP 08003169         A2         19960109         JP 1995-146285         19950613           GH 1133323         A         19961016         CH 1995 107363         19950619           GH 1066178         B         20010523         20010523         2001023         19950604         BR 1995 2861         19950620           GR 3036651         T3         20011231         GR 2001-401509         20010918		ES 2161817	T3	20011216	ES 1995-810387	19950612
CH 1133323         A         19961016         CH 1995 107363         19950619           CH 1066178         B         20010523         20010523         20010523         19950620         19950620         19950620         19950620         19950620         20010523         200105		P1 693538	T	20020130	PT 1995 810387	19950612
CH 1066178 B 20010523 GR 9502861 A 19960604 BR 1995 2861 19950620 GR 3036651 T3 20011231 GR 2001-401509 20010918		JP 08003169	A2	19960109	JP 1995-146285	19950613
BR 9502861         A         19960504         BR 1995 2861         19950520           GR 3036651         T3         20011231         GR 2001-401509         20010918		CN 1133323	A	19961016	CN 1995 107363	19950619
GR 3036651 T3 20011231 GR 2001-401509 20010918		CN 1066178	В	20010523		
		BR 9502861	A	19960604	BR 1995 2861	19950620
PRAT CH 1994-1952 A 19940620		GR 3036651	T3	20011231	GR 2001-401509	20010918
	PRAI	CH 1994-1952	Α	19940620		

CH 1994-1952 MARPAT 124:204938

15 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2004 ACS on STIL

PAGE 1-B

(Continued)

PAGE 1 C

PAGE 2-A

L5 ARSKER 20 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued) triazin-2-yl]amino]ethyl]-1-piperazinyl]-6-[[5 hydroxy-7-sulfo-6-[[2-sulfo-4-[(4-sulfophonyl)azo]pipenyl]azo]-2-naphthalenyl]amino]-1.3.5-triazin-2-yl]amino]-5-methoxy-2-methylphonyl]azo]-2.7-naphthalened|sulfonfo-acid(9C1) (CA THDEX MAME)

CH 1

CRN 174571-93-8 CMF C92 H77 N25 036 S10

L5 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2004 ACS on STIT (Continued)

CM 2

1745/1-92-7 C49 H47 N15 O18 S5

PAGE 1-B

PAGE 2-A H035

~S03H

LS ANSWER 21 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A

PAGE 1-B n-Pr0--- (CH2)3-18 — (CH2)3· SOatt

PAGE 1-C

ANSWER 21 OF 40 CAPILIS COPYRIGHT 2001 ACS on STN 1995:785207 CAPLUS 123:343739

All

III TI Water based recording liquids containing bistriazine-containing tetraazo water mased recording righted contenting distributions dyes Sano, Hideo: Sato, Nobuyoshi: Murata, Jukichi Mitsubishi Kagaku KX, Japan: Mitsubishi Chemicai Corp. Jpn. Kokai Tokkyo Koho. 15 pp. CODE: JKXXVI

PA SO

Ðĩ Palent

LA Japanese FAN.CNT 1

PATERN NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 07150098	A2	19950613	JP 1993-301926	19931201
JP 3511652	82	20040329		
PRAI JP 1993-301926		19931201		

MARPAT 123:3-13739

* ST	RUCTURE	DIAGRAM	100	LARGE	FOR	DISPLAY -	AVAILABLE	VIA	OFFL INC	PRINT	*
------	---------	---------	-----	-------	-----	-----------	-----------	-----	----------	-------	---

little liqs., useful for ink-jet printer, etc., contain water-based mediums and all dyes selected from tetraazo compds. I as free acids [A, D - (substituted) Ph. naphthyl: B, C = (substituted) phenylene, naphthylene: R1-4 = H, (substituted) C1-18 alkeyl. (substituted) argl. (substituted) cycloalkyl. (substituted) argl. (substituted) argl. (substituted) argl. (substituted) heterocycle: Y = divalent linking group: m, n + 0, 1]. Thus, diethylene glycol 10, iso-Ph alc. 3, tetraco dye [I 3, and balance water were mixed to give title liquid providing clear bluish black dots in ink-jet printing.

RI: TFM (Technical or engineered material use): USES (Uses)
(dyes: inks containing water-based mediums and bistriazine containing Fetraazo dves)

170694-21-0 CAPLUS
1.3-Benzenedicarboxylic acid. 5.5'-[1.4-piperazinediy]bis[3.1propanediylimino(6-[G3-carboxyphenyl)amino]-1.3.5 triazine 4.2 diyl]imino(1-hydroxy-3-sulfo-7.2-naphthalenediyl)azo[Z-(1-methylethyl)-5-propoxy-4.1-phenylenejazo]jbis- (9Cl) (CA INDEX NAME)

AHSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS ON STR 1995:526613 CAPLUS

1995:520013 CAPLUS
122:290905
Piperidine-triazine compounds as antioxidants
Borzatta, Valerio; Vignali, Graziano; Guizzardi, Fabrizio
Ciba-Geigy A. G., Switz.
Gen. Offen., 46 pp.
CODEN: GNXEX

DT LA Patent German

FAIL.	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	DE 4411559	A1	19941006	DE 1994-4411559	19940402
	US 5489683	A	19960206	US 1994-219049	19940328
	GB 2276878	A1	19941012	GB 1994-6236	19940329
	GB 2276878	B2	19970312		
	ES 2097081	Αl	19970316	ES 1994-692	19940330
	ES 2097081	81	19971201		
	CA 2120372	AΛ	19941006	CA 1994-21203/2	19940231
	FR 2703684	A1	19941014	FR 1994-3809	19940331
	FR 2/03684	B1.	19950804		
	NL 9400515	Λ	19941101	NL 1994-515	19940331
	BL 1006991	A4	19950214	8E 1994-340	19940331
	JP 06340660	A2	19941213	JP 1994-90570	19940405
	US 5696261	Α	19971209	US 1995-555353-	19951108
PRAT	IT 1993-MI661	A	19930405		
	IIS 1994-219049	Λ3	19940328		

MARPAT 122:290896

MARPAT 127:290896
Piperidine- and triazine-containing oligomeric compds, were disclosed as antioxidants (light stabilizers) for polymeric materials such as polypelfins (polypethylenes, polypropylenese).
162/82-56-19P
162/82-56-18P
RI: MDA (Madifier or additive use): POF (Polymer in formulation): PRP (Properties): RCT (Reactant): SPIF (Synthetic preparation): IEM (lechnical or ingineered material use): PRFP (Preparation): RACT (Reactant or reagent): USES (Uses)
Coreparation of piperidine- and triazine-containing oligomeric comods.

Opreparation of piperidine- and triazine-containing oligomeric compds.

antioxidants) 162782-56-1 CAPLUS

 $\label{eq:local_continuous_continuous_continuous} 1.3.5-\text{Intazine 2.4.6-triamine. } 0.81^{\circ\circ} 1.6-\text{hexanediylbis}[N^{\circ},N^{\circ}-\text{bis}[2-[4-[4.6-\text{bis}]\text{but}](2.2.6.6-\text{tetramethy}]-4-\text{piperidinyl})\text{amino}]-1.3.5-\text{triazin-2-yl}]-1-\text{piperazinyl}\text{pithyl}] N^{\circ},N^{\circ}-\text{bis}(2.2.6.6-\text{tetramethy}]-4-\text{piperidinyl})-(9Cl) (CA INDEX NAME)$ 

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued)

PAGE 1-B

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 2-B

 $\label{eq:local_continuous_problem} 13.5 \cdot \text{friazine-} 2.4.6 \cdot \text{triamine. } \text{H.N''' } 1.6 \cdot \text{hexancdiyIbis[N'.N'' } \text{bis[2-[4-[4.6-bis[buty](2.2.6.6-letramethy]-4-piperidiny])+mino]-} 1.3.5 \cdot \text{triazin-} 2-yl]-1 piperozainy1]\text{cthy1]-N-(2.2.6.6-tetramethy1-4-piperidiny1)- (9C1) (CA INDEX NAME)}$ 

15 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued)

PAGE 2-B

PAGE 3-A

ARSMER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) 162782-58-3 CAPLUS 1.3.5-Iriazine-2.4.6-triamine. N.N\*\*-1.6-bexanediylbis[N\*.M\*\*-bis[2-[4-[4-[bis(2.2.6.6-tetramethy]-4-piperidiny])amino]-6-[butyl(2.2.6.6-tetramethy]-4-piperidiny))amino]-1.3.5-triazin-2-yi] 1 piperazinyljethyl]- (9C1) (CA HDEX NAME)

PAGE 1-A

L5 AMSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-B

 $\label{eq:local_$ 

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-C

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L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A

PAGE 1-B

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

1.5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS ON STM (Continued)

PAGE 2-C

162782-53-8P [62782-66-3P ] 162782-68-5P ] 162782-72-1P | RL: MOA (Modifier or additive use): POF (Polymer in formulation): PRP (Properties): SPH (Synthetic preparation): TEM (Technical or engineered material use): PREP (Preparation): USES (Uses) (preparation of piperidine- and uriazine-containing oligomeric compds. antioxidants) | 162782-53-8 | CAPLUS | 1.3.5-Iriazine-2.4.6 | triamine. | N.N'-bis[2-[4-[4.6-bis[buty](2.2.6,6-tetramethyl-4-piperidinyl)] | | (CA | | N.N'-butyl-N.N'-tris(2.2.6.6-tetramethyl-4-piperidinyl) | (SCI) | (CA | | N.N'-butyl-N.N'-tris(2.2.6.6-tetramethyl-4-piperidinyl-1-piperidiny

15 AMSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN

(Continued)

PAGE 1-8

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

Mé Ne Né Ne ''

162782-68-5 CAPLUS

1.3.5-Intazine-2.4.6-triamino. N.H'''-1.6-hexanedlylbis[H'.H''-bis[2-[4-[4-6-bis[butyl].2.2.6.6-pentamethyl-4-piperidnyl]amino]-1.3.5 triazin-2-yl]-1-piperazinyl]chyl]-N (1.2.2.6.6-pentamethyl-1-piperidinyl)- (9CI)

(CA INDEX NAME)

PAGE 1-A

PAGE 2-A

1.5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 3-A

PAGE 3-A

Ne
Ne
Ne

RN 162/H2-72-1 CAPLUS
CN 1.3.5-Infazino 2.4.6-trfamine, N.N'''-1.6-hexanediylbis[N'-[2-[4-[4.6-bis[buty](2.2.6.6-tetramethy]-1-piperdinyl)amnoj-1.3.5-trfazin 2-yl]-1-piperdinyl]-(9CI) (CA INDEX NAME)

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS ON STILL (Continued)

PAGE 1-B

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

PAGE 2-A

PAGE 3-A

ANSWER 23 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

AMSMER 23 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) (preph. of piperidine and triazine contg. compds. as light, heat and oxidn. stabilizers for org. materials) 161460-19-7 CAPLUS (Glytne, N.R.\*16-[4-[2-[[4.6-bis[[2-oxo-2-[(2.2.6.6-tetramethy] 4-piperidinyl)axy]ethyl](2.2.6.6 tetramethyl-4-piperidinyl)axyJethyl](2.2.6.6 tetramethyl-4-piperidinyl)axyJethyl]-1.3.5-triazine 2.4-diyl]bis[R-(2.2.6.6-tetramethyl-4-piperidinyl) ester (9CI) (CA NANC)

ANSWER 23 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1995:408523 CAPLUS

DN 122:160691

122:160091
Preparation of piperudine and triazine containing compounds as light, heat and oxidation stabilizers for organic materials.
Vignal), Graziano; Guizzardi, Fabrizio; Zagnoni, Graziano
Ciba-Grigy S.p.A., Switz.
Eur. Pat. Appl., 35 pp.
CODEN: EPXXON

ы

PA SO

DT Patent English

FAN. CHT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡĪ	FP 627428	A1	19941207	EP 1994-810300	19940525
	R: BE. DE. ES	. FR. GB	. IT. 19		
	US 5149776	A	19950912	US 1994-249004	19940525
	CA 2124919	AA	19941204	CA 1994-2124919	19940601
	JP 070028:12	Λ2	19950106	JP 1994-142392	19940601
	BR 9402143	Α	19950307	BR 1994-2113	19940601
PRA	I IT 1993-MI1164	Α	19930603		

MARPAT 122:160691

\* STRUCTURE DEAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title coapds. (I: RL = H. alkyl. 0. OH. CH2CN. alkoxy. cycloalkoxy. alkenyl. (substituted) phonylalkyl. aliphatic acyl: A = 0. (alkyl)imino: X = C1-10 alkylene; R3 = H. alkyl. (substituted) cycloalkyl. phenylalkyl. etc.; R4 (II. RRR9H. R100. etc.; R8. R9 = R3; R10 = R3. alkenyl. (substituted) procession of the cycloalkyl. phenylalkyl. etc.; R4 (II. RRR9H. R100. etc.; R8. R9 = R3; R10 = R3. alkenyl. (substituted) pr. n = 2-4; R5 = RRIIXINR13. NR18XPX(X3HR23)rX4HR21. NR2XX5HX6HX7HR31. etc.; R11. R13. R18. R21. R20. R27. R31 R3. etc.; X1 = alkylene. cycloalkylene. cycloalkylenealkylene. phenylenedialkylene. etc.; X2-X7 = alkylene; r = 0.11, were prepared Hbs. N. C2.6.6-tctmenthyl-4-piperidinyl)glycine 2.2.6.6-tctmenthyl-4-piperidyl ester was added slowly to cyanuric chloride in mesitylene at U°: the mixture was stirred 2 h at ambient temperature. treated with K200. and heated 4 h at 80°. The mixture was cooled to ambient and treated with N.N° his(2.2.6.6-tetramethyl-4-piperidyl)-1.6-hexanediamine followed by 2 h reflux. addition of K2003. and a further 10 h reflux to give title compound II. Pollypropylene sheets containing 1 g II/1000 g polypropylene showed a time to fracture of 1470 h at 180°. vs. 510 h in the absence of II.

161460-49-7P RL: MOA (Modifier or additive use): SPN (Synthetic preparation): PREP (Preparation): USES (Uses)

ANSWER 24 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1993;497119 CAPLUS

119:97119

Radiation-resistant polyolefin compositions Nakahara, Yutaka: Maruma, Tooru: Yoshikawa, Kazumi: Takeuchi, Takashi Asahi Denka Kogyo KK, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

01 Patent

LA Japanese FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05043745 PRA1 JP 1991-202025	A2	19930223 19910812	JP 1991-202025	19910812

Title compns. contain hindered amines I (A = 2-4-valent organic amine Title Compile. Condition interest on annes is 4 = 2-4-valent organic amone residue; A is bonded to triazine ring via N and may contain it not being bonded to triazine ring; n = 2-4: R1 H. Cl-8 alkyl. Cl-8 acyl. O free radial: R2 H. Cl-18 alkyl. Thus, a composition containing Profax 6501 100. Ca stearate 0.05. trist(2-4-di-tert-buty)phonyl) phosphite 0.2. and I (A MHCGH12NH, R1 H. R2 CH9. n = 2) 0.2 part was pelletized and injection molded to give a test piece slowing good retentions of yield strongth. breaking strength, and elongation and discoloration and heat resistance after irradiation with  $\gamma$ -ray. 130997-29 RES (Uses)

N: USES (USES)
(raddation stabilizers, for polyolefins)
130597-29-4 CAPLUS
1.3.5-Triazine-2.4.6-triamine, N.N'''-(1.4-piperazinediyldi-3.1propanediylbis[N'.N'''-dibutyl-N'.N''-bis(2.2.6.6-tetramethyl-4piperidinyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

ANSMER 25 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) analkyl. etc.: R1. R2 = H. C1-18 alkyl. C2-8 alkenyl. C6-16 cycloalkyl. etc.: R1R1R2 = heterocyclyl which may contain another heteroatom; a = 0, 1; b 0-5; R3 = 01; Z = (substituted) 1.4-piperazinylene. RYMCHZNR8, etc. when b = 0; other groups defined when b = 1-5; r = 2-11; R9 = H. C1-4 alkyl. C2-6 alkenyl. etc.] were prepd, as fireproofing agents for self-extinguishing polymeric compos. Thus. ethylenedlemine was added to a soln. of cyanuric acid chloride followed by addn. of NaHCO3 and 2-methyoxycthylamine. NaOH was added over 2 h and the mixt. was stirred 1 h. HCl was then added to the mixt. which was refluxed 6 h to give title compd. I1. A polypropylene polymer compn. contg. 4.2/ I1 gave oxygen index of 32.0 (ASIN D-2863-77) and UL 94 std. rating of V0 in the vertical burning test.

NEL: SPN (Synthetic preparation): PREP (Preparation)
(preparation of as tlame proofing agent for self-extinguishing polymers)
112279-14-9 CAPLUS

1.3.5-Triazin-2(IH) onc. 4.4'-[1.4-piperazinediylbis(3.1-propanediylimino)]bis[6-(2-propenylamino)- (9C1) (CA INDEX NAME)

PAGC 1-A H2C=CH-CH2-11H

PAGE 2-A

H2C==CH-CH2-11H

ANSWER 25 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1992:490328 CAPLUS

117:90328 DN

ΤŢ Preparation of diamino-s-triazinone derivatives for self-extinguishing polymeric compositions

pormanta Comportoria Cippolli, Roberto: Nucida, Gilberto: Masanati, Enrico: Oriani, Roberto: Pirozzi, Mario Ministero dell'Universita' e della Ricerca Scientifica e Tecnologica. IN

PA

Italy Eur. Pat. Appl., 39 pp. CODEN: EPXXGW S0

DT

Patent English

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •		
ΡI	FP 475367	A1	19920318	EP 1991-115308	19910910
	EP 475367	81	19960320		
	R: AT. BE, CH.	DE. DK	. ES. FR.	GB, LI, NL, SE	
	US 5310907	A	19910510	US 1991-756921	19910909
	CA 2051080	AΑ	19920312	CA 1991-2051080	19910910
	AT 135696	E	19960415	AT 1991-115308	19910910
	ES 2084740	13	19960516	ES 1991-115308	19910210
	AU 9183836	Al	19920319	AU 1991-83836	19916911
	AU 642528	B2	19931021		
	JP 06087840	A2	19940329	JP 1991-232040	19910911
	US 5314938	Α	19940524	US 1993-15856	19930210
PRAT	IT 1990 21420		19900911		
	US 1991-756921		19910909		
05	MARPAT 117:90328				
GI					

AB Title compds. I [R = H. C2-6 alkenyl. C6-12 cycloalkyl. C6-12 aryl. C7-12

ANSWER 26 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1992:215685 CAPLUS 116:215685

Nakahara, Yutaka: Haruma. Toru; Sugibuchi. Kazuo Asahi Denka Kogyo K. K., Japan

S0

Jpn. Kokai Tokkyo Koho. 10 pp. CODFN: JKXXAF

Patent

IA Japanese FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 03275746	A2	19911206	JP 1990-74036	19900323
PRA1 JP 1990-74036		19900323		
GI				

The title blends contain 0.001-5 ph hindered amine 1 (A = organic group: R1 = H. alky1. acy1. 0.: R2 = H. alky1: n=2-4), 50:95 parts crystalling polyplefin. and 50-5 parts CR14-4-olefin robbers. Thus, a blend of 7-93 CR14-C916 copolymer 70, 75:25 ER 30. additives 0.75, and 1 (A HMC6H12M, R1 = H. R2 = Bu, n=2) (II) 0.3 part had time to cracking in a Neathercometer at 83° 1120 h and yellowness index 6.3 and 9.5 after 0 and 480 h washfering, resp.: vs. 660. 10.4. and 16.9, resp., with bis(2.2.6.6-tetramethy1-4-piperidiny1) sebacate in place of II. 130997-29-4

10097-29-4

R: USFS (USes)
(light stabilizers, for polyolefin blends with olefin rubbers)
10099-29-4 CAPLUS
13.5-Triazinc-2.4.6-triamine. N.N''-(1.4-piperazinediyldi-3.1propanediylbis[N'.N''-dhbutyl-N'.N'' bis(2.7.6.6-tetramcthyl 4piperidinyl)- (9CI) (CA INDEX NAME)

ANSWER 27 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) 140639-27-6P RL: PREP (Preparation) (preparation of, as intemescent fireproofing agents for polymers and numbers)
140639-27-6 CAPLUS

14069-27-6 CAPLUS
1.3.5 Triafrine-2.4-diaminc. N.N''-(1.4-piperazinediyldi-3.1-propanediyl)bis[6-(4-morpholinyl)-, phosphate (1:2) (9C1) (CA INDEX NAME)

CM 1

CRN 135783-75-4 CMF C24 H42 N14 02

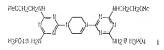
CM 2

CRN 7664-38-2 CMF H3 04 P

- ANSWER 27 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1992:215641 CAPLUS
- All
- Dit
- 1992:Zisoni Curus 116:215641 Salts of triazine derivatives with oxygenated acids of phosphorus and their use in self-extinguishing polyweric compositions Cipolli, Roberto: Masarati, Enrico: Nucida, Gilberto: Oriani, Roberto: Pirozzi, Mario Ministero dell' Universita' e della Ricerca Scientifica e Tecnologica,
- $\Pi$
- PA
- Italy Eur. Pat. Appl., 53 pp. CODEN: EPXXOW SO
- Patent English

FAI:	Cit	Ţ	1	

	cugi ian				
FAI.	CHT 1				
	PATENT NO.	KINO	DATE.	APPLICATION NO.	OATE
Ρį	EP 466137	A2	19920115	FP 1991 111506	19910710
	EP 466137	A3	19920101		
	EP 466137	81	19960417		
	R: AT. BF. CH.	DE. DK	. ES. FR.	GB, IT. LI. NL. SE	
	US 5359064	Α	19941025	US 1991-727710	19910710
	AT 136891	E	19960515	AT 1991-111506	19910710
	AU 9180367	A1	19920116	AU 1991-80367	19910711
	AU 636992	B2	19930513		
	CA 2046782	AA	19930112	CA 1991-2046782	19910711
	JP 06340770	A2	19941213	JP 1991-197176	19910711
	US 5403877	Α	19950404	US 1993-108033	19930818
PRAI	11 1990-20919		19900711		
	US 1991-727710		19910710		
05	MARPAT 116:215641				
G1					



Salts of bis(chaminotriazine) derivs, of 0 containing P acids are intenescent flame retardants of the char-forming type and are used without other additives to prepare self-extinguishing polymer or elastorer compus. Thus, a composition containing isolactic polypropyleme 72. I (prepared in 4 steps from cyanuric chloride 13.5), Explit 422 13.5, and antioxidant I part was molded to 3-mm specimens at 40 kg/cm2 to show limiting 0 index (ASTM D2863) 33.2 and UL 94 (3 mm) VO.

ANSWER 28 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1991:559184 CAPLUS

115:159184

Τī Preparation of piperndine-triazine compounds as stabilizers for organic materials

IN

materials
Borzatta, Valerio
Ciba Geigy A.-G., Switz.; Ciba-Geigy S.p.A.
Eur. Pat. Appl., 27 pp.
CODEN: EPXXDW

ĐΤ Patent English

LA

FAN.CNI I				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FP 435828	٨1	19910703	EP 1990 811007	19901219
EP 435828	81	19950125		
R: 8E, 0E,	FR. GB. II	. NL		
05 5102928	A	19920407	US 1990-630100	19901219
CA 2033128	AA	19910629	CA 1990-2033128	19901224
JP 04288074	A2	19921013	JP 1990-41/092	19901228
PRAI IT 1989-22866		19891228		
CI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

The title compds. [1, R1, R6 - isonotylamino, R-(2,2,6,6-tetramethy)-4-piperidinyl)butylamino, etc.; R2, R5 = 2,2,6,6-tetramethyl-4-piperidinyl, etc.; R3, R4 = alkylene, etc., R7 - 0, etc.; X = a group defined for R1; Y = 01, etc.; m = 0, 1; n = 0-1; p = 1-50), useful as light and heat stabilizers, and antioxidents for organic materials, are propared Morpholine was added to a soln of cyanuric chloride in xylene with stirring, at 10° and 25°, aqueous NaGil was added with stirring, aqueous phase was separated. N.H°-bis[3-(2,2,6,6-tetramethyl-4-piperidylamino)propyl piperazine were added to a xylene solution, heated at 80°, NaGH was added, and the mixture refluxed to give II. Also prepared were 9 addil. I, which were each incorporated into a polymer fiber to show excellent light stability at 63°.

136161-86-9P 136161-87-0P 136161-88-1P 136214-08-9P 136292-58-5P

13024-30-94 JOSZ-20-0-97

KL: SPN (Synthetic preparation): PREP (Preparation)
(preparation of, as monomer for light and heat stabilizer)
136161-86-9 (APLUS
Poly[[6-[bis(2.2.6.6-tetramethy]-4-piperidiny])amino]-1.3.5-triazine-2.4diyl)mino-1.3-propanediyl-1.4-piperidinyl)amino]-1.3.5-triazine-2.4diyl)mino-1.3-propanediyl-1.4-piperidinyl)amino]-1.3.5-triazine-2.4divl]imino-1.3-propanedivloxy-1.2-ethanedivloxy-1.3-propanedivlimino] (9C1) (CA INDEX NAME)

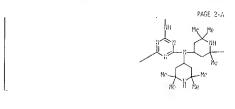
L5 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

L5 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A

 $\begin{array}{lll} 136161-gg-1 & \text{CAPLUS} \\ \text{Poly}[[6-[bis(2,2,6,6-tetrawethy]-i-piperidiny])aminoJ-1,3,5 & \text{triazinc-2,4-diyl}-1,-ipiperazinediyl-1,2-ethanediyl imino[6-[bis(2,2,6,6-tetramethy]-i-piperidiny])amino]-1,3,5-triazinc-2,4-diyl]imino-1,3-propanediyloxy-1,2-ethanediyloxy-1,3-propanediylomino]-(GCI) & (GCI) & (GC$ 

1.5 AMSWER 28 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



-- Ite

-- Ke

 $\label{label_solution} $$ \frac{136161-87-0 \text{ CAPLUS}}{1.66-\text{totramethyl-4-piperidinyl}} $$ \frac{1}{1.6-\text{hexanedyl}[(2,2,6,6-\text{totramethyl-4-piperidinyl)]}} \frac{1.6-\text{hexanedyl}[(2,2,6,6-\text{totramethyl-4-piperidinyl})]} \frac{1.6-\text{hexanedyl}[(2,2,6,6-\text{totramethyl-4-piperidinyl]}} \frac{1.6-\text{hexanedyl}[(2,2,6,6-\text{totramethyl-4-piperidinyl]}} \frac{1.6-\text{hexanedyl}[(2,2,6,6-\text{totramethyl-4-piperidinyl]}} \frac{1.6-\text{hexanedyl}[(2,2,6,6-\text{totramethyl-4-piperidinyl]}} \frac{1.6-\text{hexanedyl}[(2,2,6,6-\text{totra$ CH

L5 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 2-B

PAGE 1-B

LS ANSWER 28 OF 10 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)

136214-08-9 CAPLUS

 $\label{label_label_label_label_label_label} \begin{tabular}{ll} $I(3) = 1.3.5 + Inazine-2.4 \\ $I(3) = 1.3.5 + Inazine-2.4. \\ $I(3) = 1.3.5 + Inazine-2.4.$ 

L5 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-B

L5 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued)

 $\label{eq:local_$ CN

ANSWER 29 OF 40 CAPLUS COPYRIGHT 2001 ACS on STN 1991:515737 CAPLUS

AN DN TJ

115:115737

24.6-Triamino-1.3.5-triazine derivative phosphate and/or phosphonate mixtures for self-extinguish polymer compositions
Cipolli Roberto: Masarati. Enrico: Nucida. Gilberto: Pirozzi. Mario: IN

Oriani, Roberto Ministero dell' Universita e della Ricerca Scientifica e Tecnologica.

PA Italy

Eur. Pat. Appl.. 40 pp CODEN: EPXXDW \$0

Patent

English

FAN.	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 415371	A2	19910306	EP 1990-116512	19900828
	EP 415371	Α3	19920429		
	R: Al. BE. CH.	DE. DK	. FS. FR.	GB. LI. NL. SE	
	AU 9061365	A1	19910228	AU 1990-61365	19900827
	AU 627615	B2	19920827		
	CA 2024077	AA	19910301	CA 1990-20240//	19900827
	JP 03149262	A2	19910625	JP 1990-226447	19900828
	JP 2926642	B2	19990728		2,,,,,,,,,
	KR 130486	81	19980407	KR 1990-13309	19900828
	US 5223560	Λ	19930629	US 1992-917533	19920721
PRAT		A	19890828	100 1000	(),,
	IT 1990-19839	A	19900327		
	US 1990-572601	B1	19900327		
	00 11,00 071 001	C/I	17700001		

It 1990-1909 Rt 19900327
Title ccmpus, comprise thermoplastic polymer 45-89, anabodium and/or emine phosphate(s) and/or phosphonates 8-30 and 2.4.6-triamfire-1.3.5-triazing dimino deriv(s), 3-25. A triazine compound (1), prepared by charging aqueous MR3 into reaction product of cyanuric acid chloride and cyclohoxylamine and reacting with piperazine, had m.p. 265-269. A composition, prepared from a mixture of 1.8.3. isotectic polypropylene (melt flow index 12) 70. 21 dilaury) thiopropionate portarcythrib() tetra[3 (3.5.6 itext-buty]-1-hydroxyphnyl)propionate mixture 1. and ambodium polyplosythomic acid 20.77, had limiting 0 index 37.6 and UL 94 flame test rating V-0. 135783-75-4
Rt: USES (Uses)
(thermoplastics containing phosphates and/or phosphonates and, fire-resistant and intumescent) 135783-75-4 (ASPLUS 1.3.5-Triazine-2.4-diamine, N.N.\*-(1.4-piperazinediyldi-3.1-propanediyl)bis[6-(4-morpholinyl)- (9CI) (CA INDEX NAME)

PRAI IT 1989-23071 OS MARPAT 114:122419

- L5 ANSWER 30 0F 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) C1-18 alkyl, etc.; m, n = 2-6; X 0. '(substituted) NH] were prepd. A mixt. of 2-chloro-4.6-bis[(N-2.2.6.6-tetramethyl-4-pipertdyl)butylamino]-1.3.5-triazine. NaOl, and N.N'-bis.[3.(2.7.6.6-tetramethyl-4-pipertdyl)amino)pronyl]biperazine in mestylene was refluxed for 20 h with azcotropic removal of N2O to give piperazine deriv. II (Z1 = Q). For polypropylene plaques contg. 0.12 II. the time to fracture was 1530 h. vs. 250 h in the absence of stabilizer.

  II 130997-27-2P 130997-38-P3 130997-32-99 130997-33-07 130997-31-8P 130997-32-99 130997-33-07 150997-31-8P 130997-32-99 NR. SPN (Synthetic preparation) PREP (Preparation) (preparation of, as stabilizer for polymer)

  RN 130997-27-2 CAPLUS

  II 1.3.5-Triazine-2.4.6-triamine. N.N'' (1.4-piperazinediyldi-3.1-proparediyl)bis[N'.N''-dibutyl-N.N''-tris(2.2.6.6-tetramethyl-4-piperidinyl)- (9C1) (CA HDEX NAME)

PAGE 1-A (¢H2)3

15	AUSWER 30 OF 40 C	APLUS	COPYRIGHT 2	104 ACS on STM	
AN	1991:122419 CAPLU				
110	114:122419				
T1		azine d	privatives a	as stabilizers for poly	merc
IN	Cantatore, Giusepp				1113
PA	Ciba-Geigy AG				
SO	Eur. Pat. Appl., 1		0100 0019)	J.p.A.	
	CODEN: FPXXDW	- pp.			
DT					
LA	English				
	.CNF 1				
	PATERT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	EP 376886	AI	19900/04	FP 1989-810957	19891214
	LP 3/6886	81	19930728		4,031774
	R: RF, DF, FR	. GB. I	T. UL		
	CA 2006401	AA	19900623	CA 1989-2006401	19891221
	US 5039722	A	19910313	US 1989-454083	19891221
	BR 8906689	Α	19900911		19891222
	JP 02221273	A2	19900904	JP 1989-334698	19891223
004	F 17 1000 00071				

The title compds. I [R1 = H. C1-8 alkyl. OH. NO. etc.: R2 = OR5. SR5. etc.: R5 = C1-18 alkyl. C3-18 alkyl interrupted by O. etc.: R3. R4 = H.

L5 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A

15 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)

 $\label{eq:local_$ 

L5 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A

L5 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A

130997-30-7 CAPLUS 1.3.5-Triazine-2.4.6-triamine, N.N'''-(1.4-piperazinediyldi-3.1-propanediylbis[I'.N'',N''-tetrakis(2.2.6.6-tetrakethyl-4-piperidinyl)-(9C1) (CA INDEX MANE)

PAGE 1-A

(Continued)

ANSWER 30 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued 130997-32-9 CAPLUS 1.3.5 Triazine-2.4.6-triamine, N.N''-(1.4-piperazinediyldi 3.1-propanediyldbis(R.N'.N'.N''.N'') pentakis(1.2.2.6.6-pentamethyl-4-piperidinyl)- (9C1) (CA INDEX NANE)

## PAGE 1-A

PAGE 2 A

130997 33-0 CAPLUS
1.3.5-Triazine-2.4.6-Eriamine. N.N'''-(1.4-piperazinedlyldi-3.1-propancidyldisTN'.N''.N''.tetrakis(1.2.2.6.6-pentamothyl-4-piperidinyl)- (9C1) (CA INDEX NAME)

(Continued)

PAGE 1-A

PAGE 2-A

- $\label{eq:condition} \begin{array}{lll} 130997\text{-}34\text{-}1 & \text{CAPLUS} \\ 1.3.5\text{-}1\text{riazine-}2.4.6\text{-}\text{triamine}, & \text{N.M.}^{****}\text{-}(1.4\text{-}\text{piperazined})\text{dis}(1.3.1\text{-}\text{propaned}))\text{bis}(1.3.1\text{-}\text{midibuty}) & \text{M.M.}^{****}\text{-}\text{bis}(1.2.2.6.6\text{-}\text{pentamethyl-4-}\text{piperidinyl}) & \text{CA INDEX NAME}) \end{array}$
- L5 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A

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L5 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

(Continued)

PAGE 1-A

PAGE 2-A

131049-35-9 CAPLUS 1.3.5 Tcfazine-2.4-diamine, N,N''-(1.4-piperazincdiyldi-3.1-proparediyld)bis[N' butyl-6-(4-morpholinyl)-N,N'-bis(2.2.6.6-tetramethyl-4-piperidinyl)- (9Cl) CA INDEX NAME)

AN DN TI

ARSWER 31 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1990:218135 CAPLUS 112:218135 TAPLUS 112:218135 Addition of hindered piperidine stabilizers during polymerization Nuclhaupt. Rolf: Rody. Jean: Slongo. Mario Ciba-Geigy A.-G.. Switz. Eur. Pat. Appl. . 16 pp. CODEN: EPXXCW Patcat German

IN PA SO

German

F.	AN.CNT 1				
	PATENT NO.	KINO	DATE	APPLICATION NO.	DATE
Р	I EP 350444	A1	19900110	EP 1989-810480	19890621
	R: AT. BE. DE.	ES. FR	. GB. 11.	NL. SE	
	AU 8936690	. A1	19900614	AU 1989-36690	19890621
	AU 621630	B2	19920319		
	DD 297832	A5	19920123	DD 1989-330071	19890528
	ZA 8904936	A.	19900328	ZA 1989-4936	19890629
	BR 8903236	A	19900213	BR 1989-3236	19890630
	CN 1039605	A	19900214	CN 1989-104462	19890630
	JP 02053807	A2	19900222	JP 1989-169746	19890630
	US 5244948	A	19930914	US 1992-881322	19920507
Pi	RAI CH 1988-2502		19880630		
	US 1989-371462		19890526		
	US 1990 560248		19900727		
	US 1991-704661		19910520		
06	MADDAT 119,910196				

OS 1991-70-001

MARPAT I12:218135

Polyolefus prepared by low pressure polymerization using Mg halide-modified Zicqler-Hatta catalysts are stabilized (i.a. against heat) by adding s-triazine derivs. of interend piperidines to the polymerization Polymerization of C3H6 using a MgC12-TiC14-AlEt3-PBS (OEL)3 catalyst at 70° with gradual addition of 0.45 g of 2.4 (diethylamino)-1.6-bisEbuty(1.2.2.6.6-penta-ethyl-1-piperidyl)amino)-1.3.5-triazine (1) in 50 mL hexane gave polypropylene with catalyst activity 45.5 kg/g. isotacticity 97.12. Intrinsic viscosity 1.9 dt/g. mlt index 6.6 g/l0 ain. yellowness index 2.2. and cobritlement time at 135 and 150° >/00 and 180 h. resp.; vs. 45.5. 97.0. 1.8.

15. 4.5. 0.75. and 0.5. resp. without addition of 1.

93676-07-4 12185-93-1 121206-01-7

Rt: USES (Uses)

Cheat stabilizers for polyolefus, addition of, in Zieqler-Hatta colymenization) 93676-07-4 CAPIUS

1.3.5-Triazine-2.4.6-triamine. N-[2-[4-[4.6-bis[butyl](2.2.6.6-tetramethyl-4-piperidinyl) maino]-1.3.5-triazine-2.9]]-1-piperidinyl) MT.N'\*-dibutyl-N.N'. Tris(2.2.6.6-tetramethyl-4-piperidinyl) (CA HNDEX NAME)

L5 ANSWER 31 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

 $\label{eq:local_$ 

15 ANSWER 31 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued) L5 ANSWER 31 OF 10 CAPLUS COPYRIGHT 2001 ACS on STN

(Continued) PAGE 2-A

121206-01-7 CAPLUS 1.3.5-Infazine-2.4.6-triamine.  $N^* \cdot \{2 \ [4\cdot [4\cdot 6\cdot bts[buty](1,2,2,6.6] \ pentamenthy] - 4-piperidiny[) amino] - 1.3.5-triazin-2-yl J-1-piperaziny[] ethyl ] - 1.8.* (dbutyl - 1.8.* - bts(1.2,2.6.6-pentamenthyl - 4-piperidinyl) - (9C1) (CA | NDEX | NAME)$ 

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ANSWER 32 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1990:37354 CAPLUS 117:37354

DH TI 117:37354
Process for the methylation of triazine compounds containing 2.2.6.6-tetramethylpiperidine groups
Procentalia, Picro, Orban, Ivan; Holer, Martin; Borzatta, Valerio Ciba-Geigy A.-G., Switz.; Ciba-Geigy S.p.A.
Lur. Pat. Appl., 29 pp.
CODEN: EPXXOW

PA SO

DT Patent English

ran.	CNI I				
	PATERI NO.	K1ND	DATE	APPLICATION NO.	DATE
PΙ	EP 319480	A2	19890607	LP 1988 810815	19881129
	EP 319480	A3	19900530		
	EP 319480	B1	19940126		
	R: BE, DL. FR	. GB. I	F. RL		
	BR 8806354	A	19890822	BR 1988-6354	19891202
	CA 1319690	A1	19930629	CA 1988-584926	19881202
	JP 01190678	A2	19890/31	JP 1988-306794	19881203
	JP 2736792	B2	19980402		
	KR 130901	B1	19980423	KR 1988-16147	19881203
	US 5130429	Α	19920714	US 1991-800871	19911127
PRAT	IT 1987-22888	Α	198/1204		
	US 1988-273/83	B1	19881121		
	US 1990-586329	B1	19900918		
GI					

Compds. hearing the I group are methylated by a mixture of CH2O and H500H in arcmatic solvents. These methylated compds, are userul as heat and light stabilizers. Thus, adding 0.4 mpl N:(22.2.6.6-tetramethyl:-1 piperidyl)butylamine to 0.2 mpl (synunic chloride in 250 mL xylone at 10°, stirring for 1 h. adding 0.42 mpl NaOH in 70 mL water, heating at 80° for 2 h. adding 0.10 mpl 1.6-hexamediamine and 0.3 mpl NaOH, refluxing with removal of water, adding 0.43 mpl H500H, water, separating the aqueous phase, adding 0.43 mpl H500H and 0.44 mpl phreformaldebyde in 24.5 mL 2% aqueous NaOH solution, and heating gave N.N°-bis(2.4-bis(N.C.(1.2.2.6.6-pentamethyl-4-piperidyl)butylamingl-1.3.5-triazin-6-yl]-1.6-hexamediamine. 121185-93-1P 121185-94-2P 121206-01-7P 121206-02-8P RL: PREP (Preparation) ΛB

L5 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN (Continued) (preph. of. for heat and light stabilizers)
RN 121185-93-1 CAPLUS
CN 1.3.5-Triazine-2.4.6-triamine. N'' [2-[4-[4.6-bis[ethyl(1.2.2.6.6-pentawethyl-4-piperidinyl)mino]-1.3.5-triazin-2-yl] 1-piperazinyl]ethyl]-N.N'-diethyl-N.N'-bis(1.2.2.6.6-pentawethyl-4-piperidinyl)- (9C1) (CA INDEX INAME)

PAGE 2-A

121109-94-2 - GAPTLO3
1.3.5-Tria\_Ure2\_4.6-triamine. N'' [2 [4-[4.6-bis[bis(1.2.2.6.6-pentamothy]-4-piperidiny])amino]-1.3.5-triazin-2-y]]-1-pipernaziny]]ethyl]N.N.M''N'-tetrakis(1.2.2.6.6-pentamothyl-4-piperidinyl)- (9C1) (CA (RDLX ))

N.S. (CA (RDLX ))

## L5 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A

(Continued)

PAGE 2-A

121206 02-8 CAPLUS 1.3.5-Triazine-2.4.6-triamine, N''-[2-[4-[4.6-bis[methyl](1.2.2.6.6-eentamethyl-4-piperidinyl)camino]-1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]-N.N'-dimethyl-4.N'-bis(1.2.2.6.6-pentamethyl-4-piperidinyl)- (GCI) (CA INDEX NAME)

L5 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

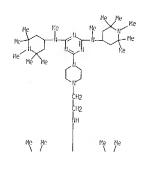
PAGE 2-A

121206-01-7 CAPLUS
1.3.5-Tciazine-2.4.6-triasnne, N''-[2 [4 [4.6-bis[buty](1.2.2.6.6-pentamethy]-4-pipcridiny])aaino]-1.3.5-triazin-2-yl]-1-pipcrazinyl]achyl]-N.M'-dibuty]-N.M'-dibuty]-N.M'-dibuty]-N.M'-bis(1.2.2.6.6-pentamethyl-4-piperidinyl)- (9CI) (CA INDEX NAME)

L5 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A

(Continued)



ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM L5

AN 1989:408402 CAPLUS

111:8402

DAI T I Compounds containing piperidine, triazine, and piperazine rings as stabilizers for synthetic polymers Cantatore, Giuseppe: Borzatta, Valerio: Masina, Franca Ciba-Geigy A.-G., Switz.: Ciba Geigy S.p.A.

Fuc. Pat. Appl., 14 pp. CODEN: EPXXDN Patent SO

English

FAN.	CHT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 299925	A1	19890118	EP 1988-8104/3	19880711
	EP 299925	B1	19921202		
	R: BE. DE. FR.	GB. IT	, RL		
	US 4883870	A	19891128	US 1988-217262	19830711
	CA 1306460	A1	19920818	CA 1983-5/1952	19880714
	JP 01034980	A2	19890206	JP 1988-176864	19880715
	JP 2704633	B2	19980126		
	KR 121755	BI	19971127	KR 1988-8961	19880716
	US 4992493	A	19910212	US 1989-403559	19890906
PRAI	IT 1987-21320	Α	19870716		
	US 1988-217962	A3	19880711		
05	HARRAT 111 0100				

MARPAT 111:8402

MARPAT 111:8102
For diagram(s), see printed CA Issue.
Compds. I (R1 = alkoxy, allylamino, substituted piperidylamino, etc.: R2 = H. alkyl. etc.: R3 = H. alkyl. substituted piperidyl, etc.: R4 - H. alkyl. cycloalkyl: n = 2-6) are prepared for use as heat and light stabilizers for organic materials such as polymers. Cyanuric chloride. [C2.2.6.6-tetramethyl-1-piperidyl)aminojmethane, and H. (2-aminoethyl)piperazine were used to propare [ R1 = H-nethyl-N-(2.2.6.6-tetramethyl-1-piperidyl)amino; R2 = R4 = H: R3 = Me: n = 2] (II). Polypropene containing 0.12 II became brittle after 1360 h at 135° in air. vs. 220 without II.
21185-88 + 121185 - 95 + 121185 - 90 - 8P
121185-91-9P 121185-92-0P 121185-93-1P
121185-91-9P 121186-01-7P 121206-02-8P
RL: PREP (Preparation)

RL: PREP (Preparation)
(preparation and antioxidant activity in polymers)
121185-08-4 CAPLUS

121183-08-4 CAPLUS
1.3.5-Triazine-2.4.6-triamine. N''-[2-[4-[4.6-bis[mothy](2.2.6.6-Letramethy]-4-piperidiny])amino]-1.3.5-triazin-2-y]]-1-piperaziny]]ethyl]N.M'-dimethyl-N.N'-bis(2.2.6.6-tetramethyl-4-piperidinyl)- (9Cl) (CA INDEX NAME)

L5 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN (Continued)

PAGE 2-A

121185-90-8 CAPLUS
1.3.5-Triazine-2.4.6-triamine. N°'-[2-[4-[4.6-bis[butyl(2.2.6.6 fetramethyl-4-piperidinyl)aminoj-1.3.5-triazin-2-vl]-1-piperazinyl]ethyl]N.M°-dibutyl-N.M°-bis(2.2.6.6-tetramethyl-1-piperidinyl)- (9CI) (CA INDEX MAME)

L5 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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L5 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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121185-91-9 CAPLUS

1.3.5 Triazine-2.4.6-triazine. N''-[2-[4-[4.6-bis[bis(2.2.6.6-tetramethyi-4-piperidiny]]amno]-1.3.5-triazin-2-y]-1-piperazinyl]athyl]-N.N.N'.N'-tetrakis(2.2.6.6-tetramethyl-4-piperidinyl)- (901) (CA INDEX NAME)

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PAGE 1 A

L5 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)

RN 121185-92-0 CAPLUS
CN 1.3.5-Iriazinc-2.4.6-triamine. N'-[2-[4-[4-[bis(2.2.6.6-tetramethyl-4-piperidinyl)]amino]-6-(2-propenylamino)-1.3.5-triazin-2-yl]-1-piperazinyl]cthyl]-M''-2-propenyl-N.N-bis(2.2.6.6 tetramethyl-4-piperidinyl)- (9CI) (CA INDEX NAMF)

15 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

RN 121185-94-2 CAPLUS CM 1.3.5 Intazine-2.4.6 triamine. N°-[2-[4-[4.6-bis[bis(1.2.2.6.6-pentamethyl-4-piperidinyl)amino]-1.3.5-triazin-2.y[]-1-piperazinyl]ethyl]-1.0.N.Y.N°-tetrakis(1.2.2.6.6-pentamethyl-4-piperidinyl)- (9C1) (CA INDEX NAME) L5 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

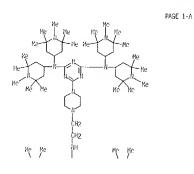
PAGE 1-A

PAGE 2-A

H2C==CH=CH2=IIH N== Ne Ne Ne Ne

| RN | 121185-93-1 | CAPLUS |

L5 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



RN 121206-01-7 CAPLUS
CN 1.3.5-Infazine-2.4.6-triamne, N°-[2-[4-[4.6 bis[buty](1.2.2.6.6-pentamethy]-4-piperidiny])amino]-1.3.5-triazin-2-y]]-1-piperaziny]]ethy]]-NN°-dibuty]-NN°-bis(1.2.2.6.6-pentamethy]-4-piperidiny]- (9C1) (CA-INDEX NAME)

PAGE 1-A

$$\label{eq:local_state} \begin{split} &121206\text{-}02\text{-}8 \text{ CAPLUS} \\ &1.3.5\text{-Triazine-}2.4.6 \text{ triamine. } \text{N''-[2-[4-[4.6-b]s]methy](1.2.2.6.6-pentamethy]-4-piperidiny])-mino]-1.3.5-triazin-2-yll-1-piperazinyl]ethyll-N.N'-bis(1.2.2.6.6-pentamethyl-4-piperidinyl)- (9Cl) (CA-NDEX-NAMF) \end{split}$$

L5 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A

ANSWER 34 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

1988:632134 CAPLUS 109:232134 AN

DN TI

Autioxidant-light stabilizer compositions for synthetic resins Lai. John T.: Son. Pyong N. Goudrich. B. F.. Co.. USA U.S.. 23 pp. Cont.-in-part of U.S. 4.547.538. CODEN: USXXXM

PA SO

ÐΓ Patent

English.

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4722806	٨	19880202	US 1985-721270	19850409
	US 4480092	Α	19841030	US 1982-350536	19820219
	US 4547538	Α	19851015	US 1984-664901	19841026
PRAI	U\$ 1982-350536		19820202		
	110 1001 001001		10000010		

I US 1982-390536 1982/0021 1982/002 1982/002 1982/003656 1982/002 HS 1984-664901 19820219

L5 ANSWER 34 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN (Continued)

PAGE 1-A

L5	ANSWER 35 OF	40 CAPLUS	COPYRIGHT	2004	ACS	on	STN
AN	1988:455915						
DN	109:55915						

TOP:0915 Triazine derivatives of piperidinylamidines Cantatore, Giuseppe: Borzetta, Valerio Ctha-Gordy A.-G., Switz.; Ciba-Gorgy S.p.A. Eur. Pat. Appl., 29 pp. CODEN: EPXXDK

SO

Patent English FAN.CRE 1

PRAI IT 1986-20798

PATENT NO. KIND DATE ' APPLICATION NO. DATE EP 250363 A2 19871223 EP 1987-810333 19870610 19890/26 19901128 FP 250363 EP 250363 R: DF, FR, GS, II US 4843159 US 1987-59650 CA 1987-539576 JP 1987-150065 19890627 19910507 19870608 19870612 A Al CA 1283908 JP 63002989 A2 19880107 198/0616 19960131 19860616 JP 08009612 84

The piperidines I [R1, R2 = QH, Me, R3 R5X or a 5-7 membered H-containing heterocyclic group: R5 = H. C1-18 alkyl, C3-18 alkenyl: X = 0. S. NR5; n = 2.6. R4 = N-containing radical] are stabilizers against oxidation or thermal or light-induced degradation. Thus, 6.15. y B.M.\*-bis-(2.2.6.6 tetramethyl-1-piperidinyl)-formemidine was heated with 18.44 g cyanuric chloride in xylene at 50.55° for 2. N. 41. g Na2CO3 was added. heated at 70° for 3 h. and 4.4\*-methylene biscyclohexylamine (10.52 g) was added and refluxed for 19 h to give N.N.\*-bis[2.4-bis [N.\*].M\*-bis-(2.2.6.6-tetramethyl-a-piperidinyl)-formamidinoj-1.3.5-triazine-6-y1]-4.4\*-methylene-bis-cyclohexylamine (11). Polypropylene containing 2.5 phr II required 1900 h Weether-O-Meter exposure for a 50% loss of tenacity, vs. 150 without II. AR

ANSWER 36 OF  $40^\circ$  CAPLUS COPYRIGHT 2004 ACS on STN 1986:130930 CAPLUS

ON Ti 104:130930

Alkylated polyalkylenepolyamines and oxopiperazinyltriazines as uv Alkylated polyalkylenepolyamines and oxopiper stabilizers Lai. John T.: Son. Pyong N. Goodrich, B. F.. Co., USA U.S., 20 pp. Cont.-in-part of U.S. 4,480,092. CODEN: USXXAM

DT Patent

English						
M.CNI 5						
PATENT NO.	KIND	DATE		APP	LICATION NO.	DATE
						19841026
		19841030		US	1982 350536	19820219
	Al	19840307		EΡ	1983-902629	19830124
EP 101735	B1	19861029				
R: BE. CH. DF.	FR. GB	. LI. NL. S	ĒΕ			
CA 1195329	Al	19851015		CA	1983121028	19830207
US 4722806	Α	19880202		US	1985 721270	19850409
US 4639179	A	19870127		US	1985-777999	19850920
AU 8815060	A1	19831027		AU	1988-15060	19890121
AU 61.2357	82	19910711				
	Α	19930223		US	1989-318047	19890302
	A	19931214		US	1992-966933	19921027
AI US 1982-350536		19820219				
US 1984-664901		19820219				
US 1985-786765		19851011				
US 1987-103779		19871002				
05 1987-103799		19871002				
US 1989-318047		19890302				
	N. CH.   S PATENT NO. US 4517538 US 4480097 EP 101735 EP 101735 R: BE. CH. DF. CA 1195329 US 4722806 US 4722806 US 4639179 AU 8815060 AU 612357 US 5270471 AI 05 1982-350536 US 1985-786765 US 1987-1037/9	M. CNL 5 PATENT NO. KIND US 4517538 A US 4480002 A EP 101735 B1 EP 101735 B1 R: BE. CH. DF. FR. GB CA 195329 A1 US 4722806 A US 4639179 A AU 8915060 A1 AU 6915050 A1 AU 692350336 A1 US 1922-360336 A1 US 1922-360336 A1 US 1928-786765 US 1987-103799	M. CH. 5 PATENT MO. KIND DATE  US 4517538 A 19851015 US 4480092 A 19941030 EP 101735 A1 19841030 EP 101735 B1 19861029 R: BE. CH. DF. RR. GB. LT. ML. S CA 1195329 A1 19891015 US 4722806 A1 19891027 AU 8915060 A1 19891021 AU 61 1987-68765 B2 19851011 AU 61 1987-103779 19871002 B3 1987-103779 19871002	H. CH. 5 PATENT NO. KIND DATE  US 4157538 A 19951015 US 4490022 A 19941030 EP 101735 A1 19540307 EP 101735 B1 19061029 R: BE. CH. DF. FR. GB. LT. RL. SE CA 195329 A1 19951015 US 4722806 A 19820202 US 4639179 A 19820102 US 4639179 A 19820107 AU 8915060 A1 19831017 US 5189173 A 19930223 US 4639179 A1 19931214 US 1922-350536 1982021 US 5270471 A 19931214 US 1928-36636 19820219 US 1987-786765 19851011 US 1987-1037/9 19871002	M.CH.   5	N. CH.   5

is 1989-1807

Fiberazinyl-triazines and oligomers, prepared from polyamines, ketones, and triazines, are light stabilizers. Thus, 2.4-bis(1-piperatinyl)-6-[1-activ)propy[[2-(3.3.5.5-tetramethyl-2-oxo-1-piperazinyl)propyl]-1.2-sthreazine was prepared by condensingf H-(2-amino-2-methyl)propyl]-1.2-sthamedianine with 2-butanone, cyclization with actione, reaction with cyanunic chloride, and condensation with piperidine.

RI: USFS (Uses)

(1ight stabilizer)

96204-42-1 CAPLUS

Piperazince, 1.1 '[[6-[4-[7-[f.4.6-bis[cyclohexyl][2-(3.3.5.5-tetramethyl-2-oxo-1-piperazinyl]bithyl]amino]-1.3-5-triazine-2,4-diyl]bis[(cyclohexyl]mino]-2.1-ethamediyl]]bis[3.3.5.5-tetramethyl- (901) (CA INDEX MARC)

ANSWER 35 OF 40 CAPLUS COPYRIGHT 2004 ACS on STM (Continued)
RL: PEP (Physical. engineering or clumical process): PACE (Process)
(stabilizers. for polymers. manuf. of)
15430-74 5 CAPLUS
Methaniundamide. dl.N: "L[6-[4-[2-[[4.6-bis[(2.2.6.6-terramethy]-4-piperidinyl)]1.3.5-trazine-2-yl]aminojethyl]-1.3.5-trazine-2-yl]aminojethyl]-1.piperidinyl]-1.3.5-trazine-2-4-diyl]]bis[N.N'-bis[(2.2.6.6-terramethyl-4-piperidinyl)-(CCI NUEX NEME)

15 ANSWER 36 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN

PAGE 1-A

1985:186021 CAPLUS

102:186021

UN TI Alkylated polyalkylenepolyamines. substituted oxopiperazinyl triazines and

UV light-stabilized compositions Lai. John Ta Yuan: Son. Pyong Nae Goodrich. B. F.. Co.. USA PA

PCT Int. Appl., 64 pp. CODEN: PIXXD2 Patent SO

DT

English

FAN.	CNT 5				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				******************	
19	WO 8302913	A1	19830901	WO 1983-US106	19830124
	W: AU. JP				
	RW: BE. CH. DL.	FR. GB	. HL. SE		
	US 4480092	Α	19841030	US 1982-350536	19820219
	AU 8313330	A1	19830908	AU 1983-13330	19830124
	AU 573170	B2	19880602		
	JP 59500215	i2	19840216	JP 1983-500878	19830124
	JP 05063475	B4	19930910		
	EP 101735	Al	19840307	EP 1983-902629	19830124
	EP 101735	81	19861029		
	R: BE. CH. DE.	FR. GB	. LI. NL. SE		
	CA 1195329	A1	19851015	CA 1983-421028	19830207
	AU 8815060	A1	19881027	AU 1988-15060	19880421
	AU 612357	B2	19910711		
PRAT	US 1982-350536		19820219		

AU 01205/ BE 19910711 IIS 1987-350536 19820219 IN 19830174 IN 1987-350536 19820219 IN 1980-198106 IP 19830174 IN 1 before, and 430 h after, extraction with water.

96204 - 42 - 1

ANSWER 38 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN

L5 An 1985:7684 CAPLUS

DN 102:7684

ΤI Piperidinyl-triazine compounds, for use as stabilizers for synthetic polymers

Contactore. Giuseppe Ciba-Geigy S.p.A., Italy Eur. Pat. Appl., 30 pp. īN

PA SO

CODEN: EPXXDW

DT German

FAN.CHI 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
·Ι	EP 117229	A1	19840829	EP 1984-810055	19840130
	R: DE, FR, GB,	IT			
	JP 59176278	A2	19841005	JP 1984-19311	19840203
RAI	IT 1983-19430		19830204		

IT 1983-19430 19830204 ISBN 1984-19450 Computs, or oligomers containing s-triazine, pipersazine, and hindered piperidine rungs are heat and light stabilizers and antioxidants for polymers. Thus, heating 465 g triacetonemune [826-36-8] and 387 g 1-piperazineethanemine [140-31-8] with 3 g 57 Pt/C catalyst in 200 mL isb-PrOH at 80-90°/40 bar H gave 1-f2-(2.2.6.6-tetramethyl-4-biperidinyl)aminolethyl piperazine (1) [93676-05-7]. Refluxing 100 mL sylene containing 113.4. 2-chloro-4.6-bis[C2.6.6-tetramethyl-4-biperidinyl)aminol-1.3.5-triazine (11) [52185-43-01 42.4. and NaOH 6 g for 20 h gave a 2:1 TI-1 adduct (III). Exposing polypropylene [9003-07-0] containing III 0.2. pentaerythitol tetrakis[3-(3.5-di-tert-butyl-1-hydroxyphenyl)propionatel 0.1. and Ge stearate 0.1 phr in a Weather-0-yeler at 63 regulared 1330 h for a 50% loss of tensile strength, compared with 220 without III.

93676 - 10 - 9

930/6-10-9
RL: PEP (Physical. engineering or chemical process): PROC (Process)
(heat and light stabilizers, for polymers)
93676-06-3 CAPIUS
1.3.5-Triacine-2.4.6-triamine, N [2 [4 [4.6-bis[ethyl(2.2.6.6-tetramethyl-4-piperidinyl)amino]-1.3.5-triazin-2-yl]-1-piperazinyl]ethyl]-N'.N''diethyl-N.N'.N''-tris(2.2.6.6 tetramethyl-4-piperidinyl)- (9C1) (CA INDEX INMER)

## Page 59

ANSWER 37 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
R1: PEP (Physical, engineering or cheateal process): PROC (Process)
(Tight stabilizers, for polymors)
96201-42-1 CAPLUS
Piperazinone, 1.1"-[[6-[4-[2-[[4.6]bis[cyclohexy1[2](3.3.5.5-tetramethyl-2-oxol-1-piperazinyl)bthyllaminol-1.3.5-trustamethyl-1.3.5-trus

PAGE 1-A

L5 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2004 ACS on SRN (Continued)

93676-07-4 CAPLUS

4-piperidinyl)aminoj-1.3.5 triazin-2.4.6-triamine, N-[2-[4-[4-6-bis[butyl(2.2.6.6-tetramethyl-d-piperidinyl)aminoj-1.3.5 triazin-2 yl]-1-piperazinyl]ethyl]-N'.N''-tris(2.2.6.6-tetramethyl-4-piperidinyl)- (9C1) (CA INDEX

93676-08-5 CAPLUS 1.3.5-Iniazine-2,4.6-triamine, N-[2-[4-[4.6-bis[octy](2.2.6.6-tetrarethyl-4-piperidinyl)anino]-1.3.5 triazin-2-yl]-1-piperazinyl]pthyl]  $N^+N^+$ -dioctyl- $A^+N^+$ -tris(2.2.6.6-tetramethyl-4-piperidinyl)- (SCI) (CA INDEX NAME)

L5 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

93676-10-9 CAPLUS
1.3.5-Triazume-2.4.6-triamine. N-12 [4 [4.6-bis[(2.2.6.6-tetramethy]-1-piperidiny]]mino]-1.3.5-triazin-2-yl]-1-piperaznyl[ethyl]-N.N'.N'-tris(2.2.6.6-tetramethy)-4-piperidinyl)- (901) (CA\_IMDEX\_NAME)

ANSWER 39 OF 40 CAPILUS COPYRIGHT 2004 ACS on STM 1982:583468 CAPILUS 97:183468

AN ON TI IN PA

97:18-908
Poly-bis-triazinylamines for stabilizing synthetic polymers Wiczer. Hartmut; Pfahler. Gerhard Huechst A.-G. , Fed. Rep. Ger. Fur. Pat. Appl. 41 pp. COBER: EPXXDW

50

Patent

L٨ German

FAN.CNT	1				
PA	ENT NO.	KIND	DATE	APPLICATION NO.	DATF
	53775	A2	19820616	EP 1981-109985	19811128
E9	53775	A3	19821006		
EP	53775	B1	19860507		
	R: Al. BE. CH.	DE. FR.	GB. IT.	HL. SE	
DE	3045839	A1	19820708	UE 1980-3045839	19801205
AT	19630	E	19860515	AT 1981-109985	19811128
AU	3178278	A1	19820610	AU 1981-78278	19811204
AU	554424	B2	19860821		
	57121034	Λ2	19820728	JP 1981 194622	19811204
JP.	04006731	84	19920206		
∂R	8107905	Α	19820914	BR 1981-7905	19811204
7A	8108425	Α	19821124	ZA 1981-8425	19811204
ÇΛ	1164865	Al	19840403	CA 1981-391564	19811204
PRAT DE	1980-3045839		19801205		
	1981-109985		19811128		
GI					

.NH(CH2)6NR. ,NH(CH2)6NH-7 (CH2)3CHe (CH2)30Me

Polymers (.apprx.40) containing triazine and piperidine rings, such as polymer I (R = 2.2.6.6-tetramethy)-4-piperidyl) (II) [83420-03-5], are prepared. The polymers are useful as migration-resistant light stabilizers for synthetic polymers such as polyolefins. Thus, cyanuric chloride [108-77-0] 0.2. #-(3-methoxypropy)-H-(2.2.6.6-tetramethy)-4-piperidyl)abine [7801-22-9] 0.2. and H-(2.2.6.6-tetramethy)-4-piperidyl)-1.6-hexanedimine [72515-37-5] 0.1 mnd gave a monemer [83420-02-4] which was copolymid, with H2N(CH2)6H2 to prepare the polymory II (mol. weight 3300). II was used (0.12) as a light stabilizer in polypropylene [9003-07-0] containing 0.2% cas stearate and 0.12 antioxidant. The polypropylene retained >50% of its initial break elongation after 1400 h in UV light, compared with 1% for polypropylene containing no light stabilizer.

L5 AllSWER 38 OF 40 CAPLUS COPYRIGHT 2004 ACS on STR

PAGE 1-B

ANSWER 39 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

AUSMER 39 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
83420:21-7
RL: PEP (Physical, engineering or chemical process): PROC (Process)
(light stabilizers, for polymers)
83420:21-7 CAPLUS
1.3.5-Infrazinc-2.4-diamine, R.N'-(1.4-piperazinediyldi-3.1-propanediyl)bis[6-chloroli-(3-choory)-1-4'-(2.2.6.6-tetramethyl-4-piperidinyl)-, polymer with N-(2.2.6.6-tetramethyl-4-piperidinyl)-, polymer with N-(2.2.6.6-tetramethyl-4-piperidinyl)-1.2-ethanediamine (9C1) (CA INDEX MAMF)

CM 1

CRN 83420-20-6 CMF C44 H80 C12 N14 O2

PAGE 2-A

CM 2

CRN 70804-02-3 CMF C11 H25 N3

HH-CH2-CH2-NH2

ΙT

83420-20-6P
RL: PREP (Preparation)
(preparation and copolymn. with diamines)
83420-20-6 CAPLES
13.5-friatine-2.4-domine. N.N''-(1.4-piperazinediyldi-3.1-propamediyl)bis(6 chloro-N'-(3-ethoxypropyl)-N'-(2.2.6.6-recramethyl-4-piperidinyl)- (9C1) (CA INDEX NAME)

PAGE 1-A

ALSWER 40 OF 40 CAPLUS COPYRIGHT 2004 ACS on STN 1981:550709 CAPLUS 95:150709 Triazine stabilizers Wiezer. Hartmut: PTablor. Gerhard Hocchst A.-G. . Fed. Rep. Ger. . Ger. . 33 op. CODEN: GWXXBX Patent

AN DN TI IN PA SO

German

GI

FAN.	UNI I				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	DE 2944729	AL	19810514	DE 1979-2944729	19791106
	EP 29522	A1	19810603	EP 1980-106702	19801031
	EP 29522	81	19840620		
	R: AT, BE, CH.	DE. FR	. GB. I1.	AL. SE	
	A1 8048	E	19840715	AT 1980-106702	19801031
	US 4433145	A	19840221	US 1980-203236	19801103
	BR 8007134	A	19810512	BR 1980-7134	19801104
	JP 56075488	A2	19810622	JP 1980-154755	19801105
	JP 01009995	B4	19890221		
	AU 8064107	Al	19810820	AU 1980-64107	19801105
	AU 535183	62	19840308		
	ZA 8006816	A	19811125	ZA 1980-6816	19801105
	CA 1140926	Al	19830208	CA 1980-364001	19801105
PRAI	DE 1979-2944729		19791106		
	FP 1980-106702		19801031		

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

The triazine derivs. If y = 0.1: x, m = 1-3: n = 2-3: Z = divalent group e.g. alkylene. (CH2)3MME(CH2)3. (substituted) phenylene: R = (substituted) piperidylamino group: R1 = CH. alkoyy. dvalkylamino] were prepared for use as light stabilizers for polymers (test data tabulated). Thus, I mol. R-(2.2.6.6-tertemethy)-4-piperidyl-3-(d)ethylamino)propylamine reacted with 0.5 mol. cyanuric chloride in Mo2CO, and the product (0.01 mol.) reacted with 0.0 col (HPNCH2)2 and powdered HaOH to give II. 79112-48-4P
RL: SEN (Synthetic oreparation): PREP (Preparation) (preparation of) 79112-48-4 (APLUS 1.3.5-Triadine.18.8\*\*("-(1.4-piperazinedtyldi-3.1-proparediyl)bis[N".N"-bis[3.(diethylamino)propyl]-N".N"-bis(2.2.6.6-tertemethyl-4-piperidinyl)- (9CI) (CA NOEX NAME)

L5 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN

(Continued)

PAGE 2-A

L5 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2004 ACS on SIN

(Continued)

10/611,438

Page 62

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=> => d que 111
            20 SEA FILE=CAPLUS ABB=ON PLU=ON ("EBENEZER WARREN"/AU OR
L6
               "EBENEZER WARREN J"/AU OR "EBENEZER WARREN JAMES"/AU)
L7
           119 SEA FILE=CAPLUS ABB=ON PLU=ON ("RUSS WERNER"/AU OR "RUSS
               WERNER H"/AU OR "RUSS WERNER HUBERT"/AU OR "RUSS WERNER HUBERT
               DR"/AU)
L8
           136 SEA FILE=CAPLUS ABB=ON PLU=ON L6 OR L7
L9
           102 SEA FILE=CAPLUS ABB=ON PLU=ON L8 AND AZO
L10
            99 SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND REACTIVE
L11
            8 SEA FILE=CAPLUS ABB=ON PLU=ON L10 AND PIPERAZIN?
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L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2004 ACS ON STN AN 2004:413024 CAPLUS
             1.10 - 408229
              Mixtures of reactive azo dyes, their production and
             their use in dyeing of material containing hydroxy- and/or carboxamido
            groups
Ebenezer, Warren James: Russ, Werner
Dystar Textilfarhen G.m.b.H. & Co. Deutschland K. G., Germany
             PCT Int. Appl.. 26 pp.
CGDFN: PIXXD2
 50
 DŦ
            Patent
 LA English
FAN.CHT 1
PATENT NO.
                                                          KIND DATE
                                                                                                      APPLICATION NO.
                                                                                                                                                             DATE
           | M2004041941 | Al 20040521 | W0 2003-EP12771 | 20031104 | M2 AE. AG. AL. AM. AT. AU. AZ. BA. BB. BG. BR. BY. BZ. CA. CH. CN. CD. CR. CU. CZ. DE. OK. DM. DZ. LC. ŁŁ. FS. FT. GB. GD. GE. GH. GM. IR. HU. ID. II. II. III. SJ. JP. KE. KG. KP. KR. KZ. LC. LK. LR. IS. IT. LU. LV. HA. MD. MG. MK. MI. MW. MZ. MZ. MD. NZ. CM. PH. PL. PI. RD. RII. SC. SD. SF. SG. SK. SL. TJ. TM. IN. IR. FT. TZ. UA. UG. US. UZ. VC. VN. YU. ZA. ZM. ZM. AM. AZ. BY. KG. KZ. MD. RU. TJ. TM.
                    RU. T.J. TM

RW: BA, GH, GM, KE, L.S. MSI, MZ, SD, SI, SZ, TZ, UG, ZM, ZW, AT, BC,
BG, GH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, FF, FT, LU,
MC, ML, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GO, GM, MI, MR, NE, SH, TD, TG

2002-2615

A 20021108
PRAI GB 2002-26151
           MARPAT 140:408229
0S
G1
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- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLIME PRINT \*
- Disclosed are reactive azo dye mixts, comprising one or more of I (Arl= sulloaryl; M = H, alkali metal; X1 = labile atom or group) and one or more of II (Ar2 = sulloaryl; M = H, alkali metal); L = mono- or divalent radical; X2 = labile atom or group; a = 1 or 2). The mixts, provide strong and economic shades on Tibrons materials. In an example. 2-aminocthylpiperazine and ethylenediamnne were condensed with a dichlorotriazinyl dye to give a red 1:1 mixture of dyes of type 1 and type  $\frac{1}{2}$ II. RE.CNT 7
- THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on SIN

## Page 63

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L11 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN AN 2004:36726 CAPLUS UN 140:95572
         Reactive azo dyes, their production and their use Ebenezer, Warren James; Russ, Werner Dystar Textilfarben G.m.b.H. W Co. Deutschland K.-G., Germany
 Τī
 PA
          Eur. Pat. Appl., 48 pp.
CODEM: EPXXDW
50
DT
          Patent
LA English
FAN.CNT I
          PATENT NO.
                                               KIND DATE
                                                                                    APPLICATION NO.
                                                                                                                                DATE
         EP 1380621 A1 20040114 EP 2003-15256 20030707
R: AT. RE. CH. DC, DK, ES, FR, GB, GR, TT, L1, LU, NL, SE, MC, PT, IC, S1, L1, LY, F1, R0, Ms, CY, AL, TR, EG, CZ, EC, HU, SK
US 2004107517 A1 20040610 US 2003-611438 2003-014
ZA 2003005261 A 20040210 ZA 2003-5261 20030708
                                                 A
A
A2
                                                                                                                                20030708
20030708
20030710
                                                                                   BR 2003-2363
JP 2003-195297
         BR 2003002363
                                                            20040824
         JP 2004043809
CN 1477159
                                                            20040212
20040225
                                                                                    CN 2003-146641
PRAI GB 2002-15982
                                                            20020710
         MARPAT 110:95572
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$$\underset{A \text{ } 1 \text{ } 1 \text{ } 1 \text{ } 1 \text{ } 1}{\text{ } 1 \text{ } 1 \text$$

The invention discloses reactive azo dyes (1: Al. A? = arcmatic sulfo-containing azo moiety: Rl. R2. R3. R4. R5  $\times$  H, optionally substituted alkyl: Xl. X2  $\times$  fiber-reactive atom or group: X. y = 0. I whereby at least one of X and y is 1: a. b. y = 2.5 and when each of X and y is 1. a y = 2.5 and when each of X and y is 1. a y = 2.5 and when each of X and y is 1. a y = 2.5 and when each of X and y is 1. a y = 2.5 and y is 1. a y = 2.5 and when each of X and y is 1. a y = 2.5 and y is 1. a y = 2.5 and y is 1. a y = 2.5 and y = 2.5 an

reactive dye (Amax 491 nm).

11 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CHAILONS AVAILABLE IN THE RE FORMAT

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111 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
               2002:888829 CAPLUS
137:385992
                Reactive scarlet azo dyes, their production and their
 TI
              use
Ebenezer, Warren James
Dystar Textilfarben G.m.b.H. & Co. Neutschland K.-G., Germany
PCT Int. Appl. 20 pp.
CODEN: PIXXO2
S0
DT
              Patent
LA English
FAN.CNT 1
                        ENT NO. KIND DATE APPLICATION NO. DATE

2002/097697 A1 20021121 W0 2002 FP4908 20020504
W: AC, AG, AL, AM, AT, AU, A7, BA, BB, BG, BR, BY, BZ, CA, CH, CH,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EF, ES, EF, GB, GD, GF, GH,
GM, NR, HU, ID, IL, NN, TS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
1S, LT, LU, LY, MA, MD, NG, NK, MH, MA, MX, MZ, NO, NZ, QM, PH,
PL, PT, RO, RU, SD, SF, SG, ST, SK, SL, TJ, TM, NT, NR, TT, TZ,
UA, UG, US, UZ, VH, YU, ZA, ZM, ZW, AM, A7, RY, KG, KZ, MD, RU,
RS: CH, GM, KF, LS, M2, M7, CD, M3, M3, M3
               PATENT NO.
              WO 2002092697
             T.J., TM

R8: CH. CM, KE. LS, M. M. MZ, SD, SL, SZ, TZ, TM, ZW, AT, BE, CH, CY, DE, UK, ES, FT, FR, GB, GR, TE, TT, LU, MC, NL, PT, SL, TR, BF, BJ, CF, CG, CT, CM, GA, GH, GD, CM, M, MR, NE, NE, SN, TD, TG

EP 1307065 A1 20040071 EP 2002-755041 20020504

R: AT, BF, CH, DE, DK, ES, FR, GB, GR, TT, LT, LU, NL, SE, MC, PT, LE, ST, LT, LY, FT, RO, MK, CY, AL, TR

ER 2002009356 A2 20040608 BR 2002-9356 20020503-

US 2001328125 A1 20040715 US 2003-477074 20031106
US 2007107535
PRAI GB 2001-11573
WO 2002-EP4908
                                                                                            20010511
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             MARPAT 137:385992
                         (R5)z
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The invention refers to piperazine-based halotriazine reactive disazo dyes (I: A = optionally substituted 2-sulfophenyl or 1-sulfo-2-nephthyl: E = H. SO3M: G = arylazohydroxysulfonaphthyl: M =  $\frac{1}{2}$ 

L11 ANSWER 3 OF 8 CAPLIES COPYRIGHT 2004 ACS on STM (Continued)
H. ammortum. aikali. aik. earth metal/2: R1-R5 = H. optionally substituted aikyl: X1. X2 = halogen; a. b = 2-5; x. y = 0. 1; z = 0-4). Searlet I are prepd. with 2 different chromophores and have excellent fastness properties. In an example, a dye was prepd. starting with 1-(2-aminoethyl)piperazine and condensing with 2 different dichlorotriazinyl azo dyes.
RC.CHT 3 THERCARC 3 CITLD REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN (Continued) (heterolarylene, 22-such groups linked together, (un)substituted (un)interrupted (by N. O. S. or such a cyclic group) C1-15 alkylene or C2-15 alkenylene] or are salts of such 1. Thus, H acid Na salt was coupled with diazotized 2.1-12NACHNICGHSSO3H and the product was coupled with diazotized 2.1-5 HZNCOHISCO3H)2 to give a disazo compd., which was deacetylated and condemsed with cyanuric chloride, and the resulting dichlorotriazine deriv, was condensed 2:1 with EthHCH2CHZHHHe to give a 1. Amax 616 nm, which dyed cotton in a fast greenish navy shade.

RE CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR HILS RECORD ALL CITATIONS AVAILABLE IN THE FORMAT

1.11	ANSWER 4 OF 8 CAPLUS COPYRIGHT 2001 ACS on STN					
ΑH	2000:11/119 CAPLUS					
DH	132:167667					
1T	Reactive tetrakisazo dyes, their proparation and use					
IN	Fbenezer, Warren James: Mynott. Donna Maria					
PΑ	BASE AG., Germany					
SO	PCT Int. Appl., 29	DD.				
	CODEN: PIXXD2	• • • • • • • • • • • • • • • • • • • •				
DT	Patent					
LA	English					
FAIL.	CHT 1					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	Un 2000000101					
ы	W0 2000008104			VO 1999-GB2447	19990726	
	W: BR. CH. IN.					
	PT. SF	CY. DE	. DK. FS. FI	. FR. GB. GR. IE. II.	IU. MC. NE.	
	EP 1100847		20010502			
	EP 1100847	۸1		EP 1999-934987	19990726	
		B1	20030416	. 00 17 17 111 40		
	IE. FI	שני שני	. to. rk. us	. GR. IT. LI: LU. NL.	SE. MG. PT.	
	TR 200100320	T2	20010621	TR 2001-200100320	10000726	
	JP 2002522587		20020723	JP 2000: 563731	19990/26	
	AT 237661	E	20030515	AT 1999-931987	19990726	
	PT 110084/	T	20030731	PI 1999-934987		
	FS 2197658	T3	20040101	ES 1999-934987		
	US 6359121	81	20020319	US 2001-744254		
PRAI	GB 1998-16780	Α	19980731		20010101	
	WO 1999-GB2447		19990726			
OS	MARPAT 132:167667					
GI						

The dyes have the formula I (each R = H, SO3H; each X = F, Cl. (un)substituted pyridinium; Y = NR17MR2 (with 1 exception), IMS2S: R1 R3 = Cl-4 alkyl. Cl-4 indropayalkyl. Cl-4 indropayal

E11 ANSMFR 5 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN AN 1999:96317 CAPLUS OF 130:154986 Reactive dyes containing a piperazine residue, their Reactive dyes containing a piperazine residu preparation and use Ebenezer, Warren James: Mynett. Donna Maria BASF A.-G.. Germany PCT Int. Appl. 59 pp. COUEN: PIXXD2 DT Patent PATENT NO. WO 9905224 KIND DATE APPLICATION NO. DATE A1 19990204 19980720 WO 1998-G82162 9905224 AI 19990204 WO 1998-G82162 19980720 W: BR, CH, ID, JP, KR, IR, US RW: AT, BE, CH, CY, DE, OK, ES, FI, FR, GB, GR, IE, IT, LH, MS, NI, PT, SE EP 998531 Αì 20000510 EP 1998-935169 19980720 EP 998531 B1 20020306 R: CH. DF. FS. GB, IT. L1. PT BR 9811035 A 20000801 19980720 19980730 ۸ T2 BR 1998-11035 IR 200000227 JP 2001510875 PT 998531 20000921 1R 2000-200000227 JP 2000-504205 T2 19980720 PI 1998-935169 ES 1998-935169 CN 1998-807524 20020830 20021016 19980720 19980720 ES 21/3604 CN 1102947 T3 20030312 19980720 20010101 20010619 19970725 TW 1998-8/112140 US 2000-462500 19989724 20000124 IV 568940 US 6248871 PRAI GB 1997-15830 WO 1998-GB2162 B1 19980720 MARPAT 130:154986

The dyes have the formula I [D1, D2 = azo chromophoric group: R1-R1 = H. (un)substituted alkyl: each R5 = alkyl: X1, X2 - labile atcm or group: a. b = 1-5:  $\times$ , y = 0. 1:  $(x + y) \ge 1$ : z = 0.4]. They can be prepared by reacting a piperazine derivative with resp. equimolar quantities of 2 triazine ring-containing reactive azo dyes or with 2 mol of a single reactive azo dye. For coloration of a substrate the dyes can be applied at pH >7 by. for example. exhaust dyeing, padding, or printing. Thus, an aqueous solution of 0.021 mol 7-[[4-(dichlorotriazinylamino)-2-ureidophenyl]azo

L11 ANSWER 6 OF 8 CAPEUS COPYRIGHT 2004 ACS on STN (Continued

111	ANSWER 6 OF 8 CAPI	us com	/RIGHT 2004	ACS on STN			
AN 1997:6072 CAPLUS							
DH 126:33021							
TI	Reactive azo dyes a	orl donin	w tharewith				
IN				lin Michael: Tallant,	Neil Liber		
214	Chanceage Andrew D	and cont.	of citians. Go	: Ebenezer, Warren Jan	Herr Anthony:		
0.4	andwords, Andrew P	dlu; Pd(	Let. Prakasi	: Ebenezer, warren Jan	ies		
PΑ	Zeneca Limited, CK;	HUTCOLL	igs. Michael	Gordon: Brennan, Coli	in Michael:		
	Tallant, Meil Anthony: Shawcross, Andrew Paul: Patel, Prakash: Ebeneze						
	Warren James						
S0		PCT Int. Appl., 46 pp.					
	CODEN: PIXXO2						
DΤ	Patent						
LA	English						
FAN, C	387-1						
	PATENT NO.	K IND	DATE	APPLICATION NO.	DATE		
PI	WO 9635012	Δ1	10061107	WO 1996-GB867			
				, BY. CA. CH. CN. C7.			
	FC EI CO	CE UII	10 10 00	. KG. KP. KR. KZ. LK.	DE. DK, EE,		
				. NO. NZ. PL. PT. RO.			
	SG. SI	Plan Pika	HIR. MW. MA	. NO. NZ. PL. P1. KO.	KU. 5D, SE,		
				. CH. DE. DK. ES. Ft.			
				. BJ. CF. CG. CI. CM.			
	AU 9652836			AU 1996-52836	19960:09		
	EP 826084		19980304	EP 1996-909274	19960409		
	R: DE, GB. 11						
			19990420	JP 1996-533093	19960409		
	EP 1013818	A2	20000628	EP 2000 104363	19960409		
	EP 1013818	A3	20010110				
	R: AT. BE. CH.	DE. DK.	ES. FR. GB	. CR. IT, LI. LU. ML.	SE. MC. PT.		
	IE. FI						
	TW 428013	В	20010401	TW 1996-85104251	19960410		
			19961106	ZA 1996 2986	19960415		
			19991102	US 1998-952170	19980130		
			19950506	03 1330-332170	13300120		
			19950525				
			19960409				
	WO 1996-GB867	W	19960409				
	MARPAT 126:33021		_				
	Reactive azo dyes and their salts are used to color						
	substrates. The process comprises applying to the substrate the						
	water-soluble dye having ≥2 electrophilic groups and a nucleophilic						
	agent having mol. weight <600 and at ≥1 group selected from aliphatic						
	primary amino groups and secondary amino groups. The nucleophilic agent						
	improves fixation and reduces the need for rinsing. In an example, grange						
	4-(β-sulfatoethylsulfonyl)anılıne+7.7'-ureylenebis(4-hydroxy-2-						
	maphthalenesulfonic acid) (/max 482 nm) was prepared and applied to						
	cotton using tris(2-aminoethy1)amine as the nucleophilic agent.						

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L11 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:931261 CAPLUS
DN 123:316756
TI Aminated cellulosic synthetic fibers and method for preparation of dyed
            Aminated Celiulosic Synthetic Tibers and method for prepare textiles from rayon and cellulose derivatives and amines. Schrell. Andreas: Russ. Werner Hubert: Huber. RFrnd Hocchst A.-G.. Germany Eur. Pat. Appl. . 15 pp. CODEN: EPXXCW Patent
 SO
 01
             German
FAN.CNT 1
PATENT NO.
                                                               KIND DATE
                                                                                                                 APPLICATION NO.
                                                                                                                                                                           DATE
          EP 665311 A1 19950000
EP 665311 B1 19981209
R: AT. BE, CH. DE, DK, ES, FR, GB, IT, LI, SE
DE 4402711 A1 19950803 DE 1994-4402
A1 19960104 DE 1994-4422
10081215 AT 1995-100
                                                                                                               EP 1995-100299
                                                                                                                                                                            19950111
                                                                                                               DE 1994-4402711
DE 1994-4422758
AT 1995-100299
                                                                                                                                                                            19940129
                                                                                                                                                                           19940629
19950111
                                                                                 19981215
19990401
19950730
19971104
19950730
19951011
                                                                                                              AT 1995-100299
ES 1995-100299
FI 1995-343
US 1995-378600
CA 1995-2141267
CH 1995-101673
             ES 2126794
FI 9500343
                                                                   13
                                                                                                                                                                            19950111
19950126
```

ES 2120/94 13 1970/901 15 1770/901 15 1770/901 15 1770/901 15 1770/901 15 1770/901 15 1770/901 15 1770/901 15 1770/901 15 1770/901 16 1770

ANSWER 8 OF 8 CAPLUS COPYRIGHT 2004 ACS on SIN
AN 1995:538231 CAPLUS
BN 172:268039
17 Process for printing and dyeing of textiles with anionic dyes and printed and dyed textiles from
Von der Ellz. Andreas: Schrell. Andreas: Russ, Werner Hubert
PA Hoschst A.-G.. Germany
COEH: EPXXCW
DI Patent
LA German

LA	German				
FAR	.cm 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				**************	
PΙ	EP 613977	A1	19940907	EP 1994-102779	1991022
	EP 6139/7	B1	20010613		
	R: AT. CH. DE.	FR. G	3. II. LI		
	DE 4306432	A1	19940908	DE 1993-4306432	19930302
	JP 06299476	٨2	19941025	JP 1994-30236	19940228
	US 5512061	A	19960430	. US 1994-204773	19940302
PRA!	DE 1993-4306432	Α	19930302	•	
ne	MADDAT 122-260060				

I DE 1993-4306432 A 19930302

MARPAT 122:768059

Title process, especially for cotton, comprises printing the textile with an aqueous solution containing an alkali fixing agent and a compound containing a primary, secondary, or tertiary amino or quaternary amonium group which can be a component of a heterocycle, fixing to modify the textile surface, and dyeling, e.g. reactive, the modified textile 21 time using an exhaust or pad process. The process with a one color pattern does not give effluents containing salt, the neutral dye solution can be optionally concentrated, and no printing dye is needed. A cotton textile was printed with a paste conty Madi and (2-sulfatocthyl)piperazine, drive steamed, crimsed, and dyed in a bath containing a reactive azo-anthraquinone dye and no electrolyte giving a blue-black shade.

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